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REPORTS

OF

AN INVESTIGATION

CONCERNING THE COST OF MAINTAINING
THE PUBLIC SCHOOL SYSTEM

OF

THE CITY OF NEW YORK,

BY THE

DEPARTMENT OF FINANCE

(Investigations Division)

Submitted to the Board of Estimate and
Apportionment.

NEW YORK, JUNE, 1904.

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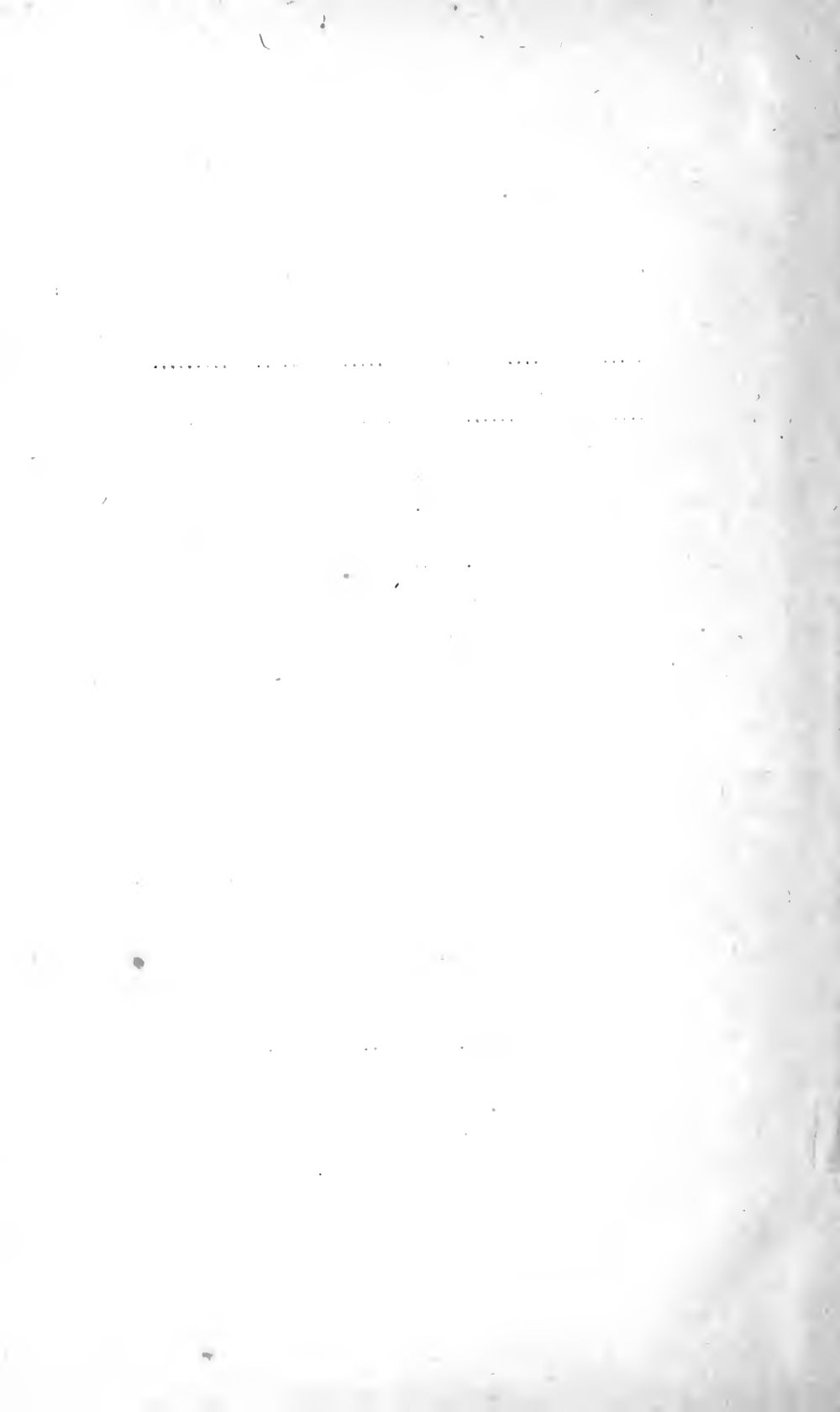
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DEPARTMENT OF FINANCE—CITY OF NEW YORK, }
JUNE 29, 1904. }

To the Honorable Board of Estimate and Apportionment:

GENTLEMEN—The immediate occasion of inquiry by the Finance Department in regard to the expense of maintaining the public school system of the City was the public announcement made by the Board of Education that owing to insufficiency of funds appropriated by the Board of Estimate and Apportionment for the year 1904 certain popular branches of the work embraced in the system would have to be in some cases greatly curtailed and in others wholly abandoned for that year.

It is believed, however, that the resulting investigation, detailed reports of which are herewith compiled, will not only prove serviceable in considering future appropriations for educational purposes, but also tend to promote a better understanding of the actual workings of this important and most expensive branch of the public service, as well as a more intelligent public opinion in regard to the reason and purposes of its maintenance.

In making appropriations for the Budget of 1904 it seemed upon consideration advisable that departmental estimates should be considerably reduced whenever a full allowance of the estimate furnished by a Department would involve a substantial increase over its 1903 appropriation, which would indeed have been the case in almost every instance. Full allowance of all the estimates furnished the Board of Estimate and Apportionment would have swelled the Budget some ten millions beyond its present by no means insignificant proportions.

The estimate furnished by the Board of Education for the year 1904 was \$17,264,974.55 for the General Fund and \$5,995,497.75 for the Special Fund, or a total of \$23,260,472.30, being an increase over the appropriation for 1903 of \$1,365,356.07 for the General Fund, and of \$1,585,746.42 for the Special Fund, or a total increase of \$2,951,102.49.

The appropriation allowed by unanimous action of the Board of Estimate and Apportionment was \$16,300,883.49 for the General Fund and \$4,612,134.28 for the Special Fund, being an increase over the appropriation for 1903 of 401,265.01 for the

General Fund, and of \$211,372.95 for the Special Fund, or a total increase of \$612,637.96, a greater increase than that allowed any other Department, with the one exception of the Fire Department, the appropriation for which was some \$750,000 greater than for the previous year, owing chiefly to increase in engine and hook and ladder company pay-rolls.

As important and popular a branch of the public service as the Department of Education admittedly is, there would nevertheless seem to be no good reason why it should enjoy any immunity from scrupulous observance of the same strict economy in the expenditure of public money as is demanded of other departments, and it was thought by the Board of Estimate and Apportionment that, with an increase of more than half a million dollars over the appropriation of the previous year, and the practice of a somewhat more rigid economy, the Board of Education would be able to continue the schools without impairment of their real efficiency, notwithstanding the considerable reduction of its departmental estimate.

Immediately upon notice of the amount at which its appropriation had been fixed as above stated, the Board of Education appointed a special committee to prepare and present a plan for apportioning the General Fund among the various objects of its expenditure. The Committee recommended the adoption of certain resolutions in substance as follows: That the sessions of the evening schools for 1904 be reduced one-fourth in number; that the salaries of the principals and teachers in such schools be reduced; that the recreation centres, from January 31, 1904, and the vacation schools and playgrounds during the entire year 1904 be discontinued; that the allowance for evening lectures be reduced to \$60,000, and that a copy of the report be sent to each member of the Board of Estimate and Apportionment, and to each member of the Board of Aldermen, accompanied by "an urgent appeal for such relief as will prevent the injury to the work of the school system which otherwise must, as above indicated, result, viz.: For the additional allowance for the purposes of the General School Fund to \$964,091.06, the amount originally asked by this Board, less the sum of \$125,000 to be transferred from unexpended balances of previous years, viz.: \$839,091.06." These resolutions were at once unanimously adopted by the Board, and public announcement immediately made of its action in that regard.

As it was a more economical administration of the school system as already constituted, rather than the total abandonment of any part of the system that had been fondly expected, the action of the Board in the premises could not fail to raise the question whether it was indeed actually impossible for it to practice any greater economy in its expenditure of more than twenty million dollars annually, and whether or not its reiterated and persistent demand for nearly three millions increase of appropriation should be favorably considered. It has been with a view to obtaining some more or less reliable information upon this question that the investigation herein reported has been conducted.

It should be observed, however, that such investigation has not been directed merely to ascertaining the possibilities of a more economical administration for the current year. It was realized that there might be economies otherwise practicable but for the time inhibited by contractual obligations already incurred. That such might be the case seemed good reason for such inquiry as would at least tend to lessen the probabilities of any further improvidence in that regard.

The investigation has been conducted, moreover, with a view to finding out if possible not only whether the system as at present constituted could be any more economically administered, but also whether there may not be somewhat of extravagance involved in the very make-up of the system itself. A seemingly economical disbursement of public money for what is not necessary may be really as wasteful as extravagant expenditure for that which is necessary.

Judgments or conclusions as to whether this or that particular activity is necessary or even contributory to real efficiency in a public school system, must, from the nature of the case, be largely a matter of individual opinion. The Superintendent of Public Schools of the City of Boston, in the Twenty-third Annual Report, published March, 1903, says of the system there:

"The reform work that now seems most needful in our grammar schools is to rid the several studies of masses of useless details. There is an almost irresistible tendency to over-elaboration in every branch of study. The maker of the text-book wishes to put therein everything that any teacher may be expected to look for, and the teacher fears lest he may be considered deficient if he fail to teach everything in the book. Thus teacher and book-maker react the one upon the other to bring about a congestion of details which is burdensome and useless to the child.

"The study of arithmetic has been attacked repeatedly in recent years on the ground of over-elaboration. The study of grammar has been much complained of on the same ground. Geography used to be burdened with a mass of rubbish called political geography, which has now been replaced by a mass of physical geography and recent geology, hardly less unsuited to young minds. The trouble with music and drawing is that the attempt is made to elaborate both these subjects beyond what the fixed time limits fairly allow. It is the same in some degree with all the other studies. Supplementary reading would be more effective if it were less diffuse and miscellaneous and more concentrated and systematic. In all our school work we need to change our aim from the acquisition of masses of knowledge to the development of mental power; and this will require much simplification in the material presented for instruction, with less appeal to the memory and more to observation and reason."

Whatever the progress made in the science of pedagogy the art of education seems not yet to have arrived at such scientific certainty as to warrant the acceptance of any opinions as expert testimony. If there be a science of education, it is one in which the doctors themselves as yet disagree. In questions of public education we must depend for practical answer, as in the case of other public questions, upon that preponderance of individual opinion which constitutes public opinion. It will be found that in several instances the examiners for this Department have very naturally, if not unavoidably,

included in the reports of their investigations conclusions which must of necessity be based upon their individual opinions. That such opinions are not altogether unfounded in reason would seem to be the verdict of public opinion as evidenced by the press and indicated by letters of approval received from many different sources. There is, moreover, reason to believe that members of the Board of Education, as well as of the Board of Superintendents, not to mention the great body of principals and teachers, are already giving favorable consideration to many of the suggestions made in the reports. It is doubtful if any one will seriously question the practical wisdom of the recommendation made to simplify the course of study prescribed for the elementary schools, and so to modify that course that more time and attention may be paid to the ordinary, fundamental common school branches, and less of time and expense devoted to special studies, or of the recommendation that teachers be permitted to do their work with less of annoyance from seemingly needless but expensive supervision. Suggestions made with a view to the adoption of a more prudent and economical policy in the procuring of sites for school houses appear to have been already productive of beneficial results.

The investigation has not discovered anywhere the least hostility to a system of public schools, or any opposition to the making of generous appropriations for whatever may be essential to their real efficiency. There seems to be no objection to providing ample and well-appointed school-houses, suitable supplies, and an adequate force of competent, well-paid teachers. It is the unanimity of public sentiment in this regard that renders a constant watchfulness against extravagance in appropriations more necessary than when they are more grudgingly made.

Inasmuch as one of the reports has already been referred to by certain members of the Board of Education as having been prepared by "persons whose qualifications for such judgment are unknown," it may not be out of place in this connection to supply such brief information as may be more or less pertinent to the question of such qualifications on the part of the several persons whose reports as Examiners for this Department will be found to contain expressions of opinion upon matters of a somewhat distinctively educational character.

Mr. John S. Crosby, of the New York bar, was for some twenty years or more actively engaged in various branches of the public school service; first in New England as teacher in the common schools, and afterwards, while principal of a private academy, as a member of a town school committee; then for eleven years as principal of one of the leading high schools of the West in a city where he served afterwards as a member of its Board of Education, and later as attorney and counsel to the Board. Several years still later he declined an offer of the principalship of one of the largest and most progressive high schools in the country. He has, however, continued to maintain a lively interest in the cause of popular education, and has made numerous addresses in the normal schools, colleges and universities of different States. A small volume entitled "Government, An Inquiry Into the Nature and Functions of the State," in which

he incidentally discusses the question of public education, has been strongly recommended for use as a text-book in elementary civics.

Mrs. Mathilde Coffin Ford has a national reputation in educational circles, and has had a wide experience in the field of elementary education. As grade teacher, principal of night school, principal of grammar school, principal of model school, principal of teachers' training school, supervisor of primary grades, assistant superintendent of schools and instructor in teachers' institutes, summer schools, colleges and universities, Mrs. Ford has had practical experience with all phases of school instruction and school administration. Her success as assistant superintendent of the Detroit school system won for her great distinction, and she has since had calls to important positions in other school systems. Residing in New York City since 1897, Mrs. Ford has been pursuing studies which have gone to increase greatly her rare equipment for investigating and reporting on the efficiency of New York's school system.

Mr. Robert B. McIntyre, under whose immediate charge the investigation has been conducted, has been engaged for many years in supervising the work of investigation and reporting as carried on by the metropolitan press, the greater portion of the time as city editor, and later as business manager of a New York daily newspaper. He could scarcely have enjoyed a better opportunity for development of the faculty for close examination, final verification and plain statement of facts and conditions, so necessary to the task assigned him.

Respectfully,

EDWARD M. GROUT, Comptroller.



REPORT No. 1.

General Scope of the City's Educational System—Elaboration of Functions Under Charter Provisions.

HON. EDWARD M. GROUT, *Comptroller*:

SIR—Investigation as to the expenditure of public moneys by the Board of Education necessitates at least a cursory survey of the public school system of the City, as well as of the laws and regulations under which it is maintained.

"The management and control of the public schools and of the public school system of the City" is, by section 1061 of the City Charter, entrusted to the Board of Education, consisting of forty-six members appointed by the Mayor.

The City Superintendent, appointed by the Board of Education, has a seat in the Board and the right to speak on all matters before it, but not to vote. The Board also appoints eight Associate City Superintendents, who, with the City Superintendent, constitute the Board of Superintendents. There are also twenty-six District Superintendents appointed by the Board of Education.

By section 1069 of the Charter, the Board of Education is empowered:

1. To establish and conduct elementary schools, kindergartens, manual training schools, trade schools, truant schools, evening schools and vacation schools.

2. To maintain free lectures and courses of study for the people of The City of New York.

3. To provide special classes for the purpose of giving instruction in the English language to persons who can not use that language readily, and whose vocations prevent their attending other schools in the system.

4. To provide one or more high schools and training schools or classes for teachers.

5. To establish and conduct playgrounds in connection with the public schools.

6. To establish new schools and discontinue or consolidate any of the schools of the system.

Section 1082 of the Charter provides that

"The board of superintendents shall establish for the schools, subject to the approval of the board of education, rules and regulations for the reception of pupils in the schools of the city, the promotion of pupils from grade to grade, from school to school, for the graduation from all grades of schools, and for the transfer of pupils from one school to another."

Section 1083 provides that

"The board of education shall, upon the recommendation of the board of superintendents, approve text books, apparatus and other scholastic supplies for use in the public schools of the city. Requisitions for such text books, apparatus and scholastic supplies shall be made by principals upon the superintendent of supplies, under rules to be established by the board of education, but no requisition for any school shall be honored unless it is approved in writing by the district superintendent of the district where such school is situated."

Section 1084 provides that

"The board of education shall have power to change the grades of all schools and of all classes of any high school or other school under its charge, upon the written recommendation of the board of superintendents, and upon the same recommendation to adopt and modify courses of study for all schools under its supervision."

Section 1086 provides that

"Subject to regulations prescribed by the board of superintendents, and under the supervision of the district superintendent in charge, the principal of each school shall direct the methods of teaching in all classes under his charge. The board of superintendents shall have the power, from time to time, to issue syllabuses of the topics in the various branches taught, which shall be regarded as the minimum amount of work required in such branches."

Section 1075 provides as follows:

"The board of education shall provide for the purchase of all books, apparatus, stationery and other things necessary and expedient to enable the schools of the city to be properly and successfully conducted."

Section 1076 makes the Superintendent of Supplies the executive officer of the Board for the purchase of supplies.

The provisions of section 1098, prohibiting school officers from having any interest in the furnishing of supplies or materials, are by said section declared — "not to apply to authors of school books used in any of the public schools, because of any interest they may have as authors in such books."

By section 23 of the By-Laws, adopted by the Board of Education, it is provided as follows:

"1. The committee on studies and text books shall have charge of all matters relating to courses of study and the selection of text books and books for supplementary reading.

"2. All recommendations of the board of superintendents with regard to courses of study, selection of text books, and books for supplementary reading, shall be filed with said committee, and shall be transmitted, with recommendations as to approval or disapproval, to the board of education for action thereon."

The Board of Education has evidently deemed it advisable to exercise all the powers conferred upon it by section 1069 of the Charter, and in so doing has established elementary schools, kindergartens, manual training schools, truant schools, evening schools, vacation schools, free lectures, special classes for instruction in the English language, high schools, training schools for teachers, play-grounds, and recreation centres.

The elementary schools constitute the bulk of the system. They are attended by children six years of age and upward, and provide a course of study extending over eight years, each year covering two grades, A and B, making sixteen grades in the full course, designated as Grade 1A, Grade 1B, Grade 2A, and so on, from the first to the eighth year, inclusive. Graduates from the elementary schools may pass into the high schools, which provide courses of from two to five years, while children between four and six years of age are cared for in the kindergartens.

THE NEW COURSE OF STUDY.

In May, 1903, the Board adopted a uniform course of study to be followed by the elementary schools throughout the different boroughs. The course of study is elaborate, as are also the syllabuses, which indicate in detail the minimum amount of work required in each branch. English, mathematics, physical training and hygiene, drawing and constructive work, and music, are pursued throughout the entire eight years; nature study during the first five years; sewing during the greater part of the course; geography during the last five years; history the last four years; civics the last three; elementary science the last two; cooking or sewing the last two; and French, German, Latin or stenography as an elective the last year.

The list of approved text books is made to contain, as a rule, several different books suitable for use in each grade of the several branches taught, from which Principals may select as they prefer in making their requisitions for class use.

THE LEGITIMATE END OF PUBLIC SCHOOL ADMINISTRATION.

* Extravagance or lack of economy, if any there be in the conduct of the schools, may be due to negligence or other inefficiency on the part of officials in their efforts to comply with the requirements of the prescribed course of study, or it may be the logical result of the best endeavor on the part of all to follow that course. In other words, there may be waste of money in the manner of administering the system, or the system itself may be extravagant, and the more wasteful the more faithfully it is administered.

A system of popular education to be maintained at the public expenses is, of course, extravagant to whatever extent it involves any expenditure not necessary to the legitimate end of a public school system, which is to provide a course of instruction and study best calculated to secure the highest average of intelligent citizenship.

There could, perhaps, be no better test of the efficiency of a system adapted to the demands of this City and country than that of the degree to which it succeeds in sending out from the elementary, or so-called grammar grades, through which alone the great majority of children are so fortunate as to pass, graduates having a practical knowledge, and habitually correct use of the English language, together with such knowledge of mathematics, geography and history as may be reasonably expected. A course of study into which there are introduced any exercises or branches interfering with the healthful acquirement of such knowledge involves not only a waste of the money directly expended upon them, but also a loss of efficiency in the best methods that may be adopted for teaching essentials. This, of course, results in a waste of the money appropriated for essential instruction and training, to say nothing of the wasted time and energies of pupils and teachers. There can be no knowledge, training or accomplishment, however desirable, of sufficient relative importance to warrant its acquirement in the public schools at the expense of what is ordinarily called a common school education, to provide which is universally acknowledged to

be the primary object of the public or common school system. If the pupil leaves the public schools without such education, no matter what may be his special acquirements or accomplishments, he goes out unfitted for that citizenship, the necessity of providing opportunity and means of preparation for which constitutes the sole warrant for maintaining such schools. Objection is not here made to the introduction of any extra or special branches of admitted usefulness to the average pupil, provided they can be successfully pursued without detriment to this primary and essential function of the public schools.

SPECIAL BRANCHES OF STUDY.

And yet, if public schools were not necessary in order to insure that popular knowledge of the ordinary common school branches deemed necessary to intelligent citizenship, that is, if such knowledge were sure to be acquired without the aid of such schools, it is by no means certain that public opinion would favor their maintenance for the sole purpose of affording an opportunity to pursue the extra or special branches now taught therein. The latter have one after another found place in the curriculum on the ground that attendance upon the public schools so monopolizes the pupil's time that the special branches must be taught him there if anywhere. But, as already suggested, there can be no warrant for their introduction to the exclusion or neglect of the ordinary branches, or to such an extent or in such manner as to interfere with the successful prosecution of the ordinary common school course of study.

It is, of course, always easier to criticise a system than to construct one, easier to find faults than to remedy them. Bearing this in mind, and realizing, moreover, that the popular favor in which the public schools have deservedly come to be held, renders any criticism of them, however well intended or well founded, more or less liable to the charge of hostility to the system as a whole, it is not without some hesitation and much deliberation that the following suggestions are made.

OVERLOADING OF THE SYSTEM.

It will hardly be contended that pupils graduated from the elementary public schools of this or of almost any other city are as well grounded and as proficient in the common school branches of study as could well be desired, or as the time and money ostensibly appropriated to that end would seem to warrant. This can hardly be the fault of the teachers, than whom a better qualified or more conscientious body of public servants it were idle to seek. They are themselves sensitively aware of this failure of the system to produce or even permit the results for which they so faithfully strive.

However much, for reasons already stated, one may hesitate to express it, there can be little hesitancy in forming the opinion that teachers and pupils are called upon to do, not too much perhaps, but too many things, to permit their doing anything well or thoroughly. The apparently successful and supposedly beneficial introduction of this and that specialty into the schools of one city or another has led to their adoption by other cities, through fear of being thought behind the times, until now

whatever has been done anywhere is attempted everywhere, or at least wherever it is aimed to keep abreast, if not a little ahead, of this procession, which seems to have lost sight of its original destination, seeming to care not so much about getting anywhere in particular, as to present an impressively imposing appearance on the way to everywhere in general. While philosophizing about natural methods in teaching we have brought about artificial conditions under which the pupil withers and the "system" is ever more and more.

It was perhaps hardly to be expected that New York would long withstand the temptation to make its system second to none in its provisions for whatever is provided elsewhere. The Charter provisions would seem to have been prepared with this end in view, and the Board of Education and School Superintendents to have had it in mind in formulating the new course of study to be pursued in the elementary schools. This has been done, no doubt, with the best intention and in the belief that the course of study prescribed is the best that can be devised.

The apparently general assent given by professional educators to what most laymen regard as an overloading of the common school system is due mostly to a certain esprit de corps, or tendency to sympathize with and even defend whatever the educational associations of the country may, for the time, seem to approve, however unadvisedly. So strong is the influence of this spirit of conformity that open opposition on the part of a superintendent or teacher might result in the loss of his position. If outspoken criticism is to be made it must come, for the most part, from persons outside the system and not subject to the influence exerted by those that dominate it.

A GLANCE AT THE NEW COURSE.

It needs but a cursory view of the several courses of study prescribed for the New York City elementary schools to raise the query in any unprejudiced mind as to whether it is possible for the average pupil of the elementary school age to pursue them all to any advantage. A closer examination of such courses, together with an inspection of their accompanying syllabuses, will lead to the conclusion that the ordinary child between the ages of six and fourteen years cannot begin to digest the profuse abundance of ostensibly mental pabulum so rigidly prescribed for him.

The recently prescribed course of study has perhaps not been in operation long enough to afford data for any comprehensively accurate estimate as to the results of its adoption and continued use, but there appears to be a very general agreement, among teachers in charge of different branches of the course for the last ten months, that it is too heavy, and impossible of completion in the time allotted to it.

In addition to the ordinary common school branches, the difficulty of mastering which even under the most favorable circumstances is generally admitted, the pupil is required to attend through all the grades upon instruction given in elaborate courses of study in drawing, constructive work, sewing or cooking, in physical training and hygiene, in music, and, during the first five years in nature study. Special teachers

are provided for imparting this special instruction, attention upon which absorbs so much of the pupil's time and energy that he has neither the opportunity nor the strength for successful prosecution of the fundamentally essential branches. Subsequent reports will contain the results of an examination more in detail of the various branches included in the course of study.

As before suggested, it is not here contended that no attention should be given to the special branches, but that their pursuit should be limited to the time and opportunity remaining after the pupil has been first afforded ample time and provision for successful and not too arduous prosecution of the essential branches. Whatever may be the virtues of hard work, it is not beneficial to young children, not any more so in school than elsewhere.

There can be little doubt that a sound economy in public school administration demands the doing away in elementary schools with so much at least of instruction in special branches as may be required in order to afford pupils and teachers time and opportunity for efficient prosecution of the ordinary common school course of study. The amount of money saved would depend, of course, upon the number of special teachers whose services were dispensed with, and the cost of text books and other supplies formerly, but no longer, required. It is believed that a large saving could be effected in this way, and that without injury but rather with positive and much needed improvement to the public school system. There is reason to believe that a majority of principals and teachers would favor some such change of program.

Analysis has been made of disbursements incident to the maintenance of the several special courses of study, together with an inquiry as to the ascertainable effect, if any, which their prosecution has upon the efficiency of the work required to be done by teacher of the regular and more essential branches. The results of these examinations will be found in reports following this.

COLLEGE COURSES AND EXAMINATIONS.

The question of college and summer school courses for teachers, as prerequisites for eligibility to examinations for promotion and higher licenses, is one of interest to many teachers in the system, and may be considered in connection with the regular course of study.

The requirements for promotion licenses and principals' licenses demand a course of from 60 to 120 hours in the science of education or other subjects. These courses must be certified to by the instructors and accompanied by examinations. The courses cost from \$10 to \$15 for 30 hours, or \$25 per summer session of 60 hours.

In lieu of certain of such courses, the passing of an examination set by the Board of Examiners is accepted. Whether because of the greater ease of satisfying the college authorities, or dislike to examinations set by the Board, the college courses are more largely patronized by the teachers.

In the summer of 1903, 322 New York City teachers attended courses in Columbia University Summer School, and probably 85 in New York University. Others undoubtedly were enrolled in Cornell, Harvard, Chautauqua and other schools whose certificates are accepted. Besides the summer school, it is estimated that nearly 1,000 teachers attend courses under university auspices during the school year. Some teachers take as high as seven hours' work per week.

In certain of the summer schools high officials of the school system have been secured by the authorities of the schools to give instruction—possibly as an added attraction to public school teachers. Certainly their particular branch of pedagogical instruction would pass muster. Good work in theory under one of the supervising staff ought not to unfavorably affect a teacher's class room record. That may help to explain the large attendance at certain courses.

Much may be said on both sides of this subject. It is at least a question, however, if the exhausting and nerve wearing work required of teachers by conditions of New York City schools should be augmented by the added strain of practically compulsory attendance at college work. The salaries that are paid should, under proper conditions, attract a class of teachers whose possible deficiencies of early education would not require remedying in that manner. Purely voluntary work is a different matter.

CONCLUSION.

The conclusion is inevitable that the public school system of this City, in common no doubt with those of many of the other cities of the country, is overloaded, and rendered unduly expensive, by reason of the introduction and maintenance of much that has no other warrant than that of conformity to some as yet undemonstrated theory of education, or that of affording material for showy exhibits to be made at conventions and expositions, or set forth in educational reports. As already suggested, it is not alone the extravagant expenditure of money, but also and more the needless loss, the criminal waste, of time and energy on the part of pupils and teachers alike, that call for thorough investigation of the matter under consideration.

Yours respectfully,

JOHN S. CROSBY,
ROBERT B. McINTYRE,
Investigations Division.



REPORT No. 2.

The New Course of Study—Special Branches—Essentials—Too Much Supervising.

HON. EDWARD M. GROUT, *Comptroller*:

SIR—In submitting this report of an investigation made with a view to ascertaining in what particulars, if any, the expense of conducting the elementary public schools of the City may be reduced without consequent diminution of their real efficiency, it may be well to state briefly upon what theory as to the reason and purpose of popular education at public expense the investigation has been attempted. Without some approximate agreement as to the primary warrant for establishing a public school system there can be none as to its true object, and consequently none as to what constitute legitimate expenses of such a system.

If there were available for public uses a fund belonging primarily to all the people in common, no part of it being contributed from individual resources, it might well be expended in such manner as the majority should deem most beneficial to all. The beneficent public purposes to which such a fund could be legitimately devoted might be limited only by its amount.

But as there is no such social fund at present available, and as public revenues are, for the most part, made up of enforced contributions from private sources, taxpayers earnestly and not unreasonably object to exactions not necessary to any legitimate purpose of the government making them. The only just warrant for establishing or maintaining government, a compulsory regulation of society, would seem to be the necessity for such government in order to secure to all persons within its jurisdiction the peaceable enjoyment of their inherent rights, which exist in the nature of things and necessarily prior to and independently of any government.

It may be pertinently asked then: For the accomplishment of what legitimate purpose of government is the establishment and maintenance of a system of free public schools deemed necessary? Is an education, such as is to be acquired in them, one of those inherent rights necessary for securing which would alone and of itself warrant the establishment of a government? In other words, if the peaceable enjoyment of natural opportunities for the pursuit of happiness were secure to all without the aid of government, and there were no need of it, except for the sole purpose of maintaining a system of popular education, would such purpose alone and of itself warrant the establishment of compulsory government? There can be but one answer to such a question, and it must be evident that whatever government properly has to do with education is done not for education's sake but for purposes of government.

There have been governments under which it would have been suicidal for them to promote that popular intelligence upon which our form of government depends, and to guarantee which is the legitimate end of the American public school system.

And yet that system is now devoting great time and expense to the teaching of much that might be taught to the masses under any the most despotic government without in the least disturbing their stolid acquiescence in its arbitrary rule. Education essential to intelligent American citizenship is possible of acquirement without instruction in physical culture, manual training, music or drawing, beneficial as may be the result of such instruction to those receiving it. On the other hand, one might become proficient in such special acquirements and yet remain as unfitted for intelligent participation in popular government as the skilful but unlettered slave. It is by no means here intended to underestimate the value of such instruction, but simply to emphasize the fact that since it is not essential to the main purpose of the public schools, namely, to promote intelligent citizenship, its incidental provision should never be permitted to interfere with the efficiency of their legitimate work.

There is every reason to believe that the course of study under consideration was not adopted without long and patient deliberation on the part of its framers, among whom were educators of eminence. It may be, however, that their very eminence is not without a tendency to render them less capable of outlining work to be done by children of the elementary school age than would be a committee of mothers selected from those having had practical experience in teaching such children. It is sometimes the case that those most influential in directing educational forces have had little practical experience at the vital point where the pressure of those forces is brought to bear upon the endurance of the pupil. Teachers having the actual work to do should have much to say as to what it shall be.

Hardly too much is to be said in commendation of the outline of work contemplated in the essential or staple branches of the course. A thorough mastery of the prescribed courses in English, mathematics, geography and history would be perhaps more than the most sanguine person could ask to be accomplished by graduates from the elementary schools. Reasonable proficiency is all that should be expected, and no considerations of false economy should stand in the way of its attainment.

Criticism of the work outlined for the other or special branches of the course is here directed mainly to the time devoted to such branches, not too much perhaps for the work contemplated, but more, it is believed, than can well be spared from efficient prosecution of the elaborate courses outlined for the essential branches.

A TIME SCHEDULE FOR TEACHERS.

APPORTIONMENT OF SCHOOL HOURS AMONG THE VARIOUS BRANCHES OF STUDY ARRANGED WITH RAILROAD PRECISION.

Inspection of the following "Time Schedule" will show the apportionment of a week's time of 1,500 minutes among the various branches taught in the elementary schools, and cannot fail to suggest the hurry and strain of catching trains at a crowded railway station. There can hardly be the most efficient school work where there is so much clock work.

Time Schedule on the Basis of 1,500 Minutes Per Week.

Years.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.
Opening Exercises	75	75	75	75	75	75	75	75
Physical Training, Physiology and Hygiene, Recesses and Organ- ized Games	200	165	165	165	90	90	90	90
English	450	510	450	375	375	375	(9) 360	(8) 320
Penmanship	100	125	125	75	75	75	....	....
Electives (German, French, Latin, Stenography) .....	....	....	....	....	....	....	....	(5) 200
Geography .....	....	....	....	135	120	120	(2) 80	....
History .....	....	....	....	....	90	120	(3) 120	(3) 120
Mathematics	120	150	150	150	150	200	(5) 200	(4) 160
Nature Study	90	90	90	90	75	....	....	....
Science .....	....	....	....	....	....	....	(2) 80	(2) 80
Drawing and Constructive Work..	160	160	160	120	120	120	(2) 80	(2) 80
Shop Work, Cooking, or Ad- vanced Sewing .....	....	....	....	....	....	....	(2) 80	(2) 80
Sewing and Constructive Work...	60	60	60	60	60	60	....	....
Music	60	60	60	60	60	60	60	60
Study .....	....	....	90	135	150	150	(5) 200	(4) 160
Unassigned Time	185	105	75	60	60	55	175	75
	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500

NOTE—Both boys and girls are to take the work outlined under sewing and constructive work in the first three years.

Electives—The study to be pursued in any one school shall be determined by the Board of Superintendents. In no school shall more than one of these subjects be introduced unless at least thirty additional pupils of such school elect it. A different subject may be substituted for any one of the above at the discretion of the Board of Superintendents.

The figures in parentheses in the seventh and eighth years represent the number of forty-minute periods per week.

As 1,500 minutes per week are spent in school by the pupils in each of the eight years, the total attendance for all years is 12,000 minutes per week, apportioned as follows:

Branches.	Minutes.
Opening exercises	600
Physical training, etc.	1,055
English	3,215
Penmanship	575

Branches.	Minutes.
Electives	200
Geography	455
History	450
Mathematics	1,280
Nature study	435
Science	160
Drawing and constructive work.....	1,000
Shop work, cooking and advanced sewing	160
Sewing and constructive work	360
Music	480
Study	885
Unassigned time	690
Total.....	12,000

It will be seen that of the total, 12,000 minutes, only 5,975, or a little less than one-half, are allotted to the essential branches, English, penmanship, geography, history and mathematics, which is the ratio of apportionment applying to the entire elementary course of study.

FOURTH YEAR COURSE.

Children at the Age of Ten Instructed in Elementary Science, Nature Study, Drawing and Constructive Work, Physical Training, Hygiene and Music.

Some general idea of the work outlined and of the time allotted to its different branches may be formed from inspection of the courses of study and the syllabuses prescribed for some one of the sixteen grades of the eight-year course. Selecting, for instance, Grade 4A, pupils in which average perhaps ten years of age, the work of the eighteen or twenty weeks of the term is found to be outlined as follows:

COURSES OF STUDY AND SYLLABUSES FOR GRADE 4A.

COURSE OF STUDY IN ENGLISH.

Composition—Oral and written reproductions. Model compositions studied and imitated; paragraphs and stanzas from memory or dictation. Study of simple declarative sentences; construction of typical sentences. Rules for the use of capital letters and marks of punctuation.

Penmanship—Movement exercises; writing from copy.

Reading—From readers and other books; the meaning of words. Reading to pupils. Ethical lessons. Use of library books.

Spelling—Words from lessons of the grade.

Memorizing—Prose and poetry.

Syllabus.

Composition—The stories told or read for reproduction may include myths and legends. Pupils should reproduce in writing, without aid from the teacher, the subject matter of their silent reading.

The model compositions to be studied, including letters, should be short and simple. Special attention should be given to the sequence of paragraphs. Compositions in imitation of these models should be written by the pupils under the teacher's direction. The drills on correct forms should include the parts of irregular verbs in frequent use. In letter writing there should be exercises in addressing envelopes.

There should be occasional exercises in copying from print. The paragraphs and stanzas written from memory or dictation should be selected for their inspiring content and literary form.

Pupils should study the fundamental structure of declarative sentences by finding their subjects and predicates. In teaching pupils to construct typical forms of statements the teacher should have in mind such a classification as will insure the expression of all the more important forms of thought, e. g., sentences that state (1) what things do, (2) what is done to things, (3) what the qualities of things are, and (4) what things are. The first two of these should receive special attention in this grade. In connection with sentence study the important plural forms of nouns should be taught.

Capitalization—First word of sentence; the word I; first word of line of poetry; proper names. Punctuation: End of statements; end of questions; abbreviations; dates; word broken at end of line; unbroken quotations; constructions.

Penmanship—As in the preceding grades.

Reading—Several books of fourth-year grade, including such as F. D. Sherman's "Little Folk Lyrics"; Anderson's "Fairy Tales," and books to supplement the work of the grade in nature, geography and local history.

The reading lesson proper should be preceded by only such conversation as may be necessary to prepare the minds of the pupils for the proper appreciation of the subject matter. The teacher should bear in mind that correct expression in oral reading is dependent upon the reader's appreciation of the thought and feeling.

The Meaning of Words—Pupils should be trained to depend largely on the context for the meanings of words. The use of diacritical marks as aids in the pronunciation of difficult words, and in the intelligent use of the dictionary, is recommended.

Reading to the Pupils—For general suggestions, see 1A. The selections may include "Hiawatha and Mudjekeewis," "Hiawatha's Fasting" and "Hiawatha and the Pearl Feather"; Browning's "Pied Piper of Hamelin"; myths in good literary form, such as Kupfer's "Stories of Long Age," Hawthorne's "Wonder Book" and "Tanglewood Tales," nature stories, stories from the Old Testament and a long story to cultivate the power of sustained interest, e. g., "Alice in Wonderland," Dodge's "Hans Brinker," Jeffrie's "Sir Bevis," or Brown's "Rab and His Friends."

Ethical Lessons and Use of Library Books—See introductory notes.

Spelling—at least 300 new words selected from the pupils' vocabulary and from the lessons of the grade. Review of words frequently misspelled.

Memorizing—As in 3A. Selections may be made from the following lists:

The Night Wind.....	Field
The Children's Hour.....	Longfellow
Jack Frost.....	Gould
Robert of Lincoln.....	Bryant
"He Prayeth Best".....	Coleridge
The Wreck of the Hesperus.....	Longfellow

COURSE OF STUDY IN MATHEMATICS.

Oral—Reading numbers to one hundred thousand. Counting. The four operations. Multiplication tables through 12×12 . One-half to seven-eighths of numbers within the tables. Changing fractions to equivalent; addition and subtraction. Measurements and comparisons. Problems.

Written—Integers of five orders; the four operations. One-half to seven-eighths of integers. Addition and subtraction of fractions. Problems.

Syllabus.

Special Work—Multiplication and division; multipliers and divisors, three orders.

Multiplication and Division—Oral—Multiplication tables through 12×12 ; multiplication of any two numbers whose product is less than 50; separation of numbers less than 50 into two factors. Rapid drill as in preceding grades. Written—Multipliers and divisors of three orders. Special attention to proofs.

Addition and Subtraction—Oral—Rapid drill (see 3A and 3B); sum and difference of two numbers of two orders; e. g., 28 plus 35, 28, 58, 63; 95 minus 66, 95, 35, 29. Written—Special attention to accuracy and rapidity.

Fractions—Special attention to business fractions: 1-2, 1-3, 2-3, 1-4, 3-4, 1-5, 2-5, 3-5, 4-5, 1-6, 5-6, 1-8, 3-8, 5-8, 7-8; operations on multiples of the denominators within 100. Written: Addition and subtraction of fractions whose least common denominators may be found by inspection; the same of mixed numbers. Multiplication of an integer by a mixed number containing one of the business fractions.

Counting—By 11s to 132, by 12s to 144, as a preparation for the multiplication tables; also rapid drill with numbers under 10 to about 100, beginning with 1, 2, 3 and so on.

Measurements and Comparisons—Miles; distance between a few well-known places in the City; dimensions of city lots. Long measure, square measure, cubic measure; tables developed, e. g., square inch and square foot compared, and then memorized. Lengths and areas as in 3B; volumes of rectangular solids by taking the number of

cubic units in one row or one layer as the multiplicand; dimensions of room, area of floor, contents of room estimated and then measured; similar exercises with boxes; diagrams drawn to scale to represent areas; rectangles separated into equal parts, and easy fractions of them compared, to find how much greater one is than the other. Lengths measured to the half-inch, fourth-inch, eighth-inch.

Problems—Finding a quantity when a fractional part of it is given, occasionally illustrated by drawings and by objects. Problems may involve more than one operation; explanations of processes may be required; operations may be indicated by signs.

COURSE OF STUDY IN GEOGRAPHY.

Home Geography—Topography of The City of New York and vicinity; the people and their occupations.

Local History—Stories connected with the early history of New York.

The Earth—Form, motions and grand divisions of the earth.

Syllabus.

Home Geography—Topography of New York and vicinity; borough and city boundaries; land and water forms of the neighborhood; the harbor, water fronts, wharves, with a brief study of outgoing and incoming vessels as carriers (commerce and immigration), and of harbor boats and other local craft. Location of main avenues and streets, including those leading to important ferries; brief reference to places and monuments of historic interest; routes of travel and transportation; names and locations of bridges, tunnels, parks and other points of local interest, with their attractions, and the means of reaching them.

Population—Nationalities represented; comparative populations and areas of boroughs. Location of residential, manufacturing, commercial, and other districts. Industries, occupations and productions, with a special study of a few of the leading producing and distributing centres, and of local commerce. Reports on typical articles for sale at local shops, including the place of production, method of transportation, distribution and consumption. Observation and reports on the work of the Police, Fire, Health and Street Cleaning Departments. Simple explanation of business concerns, individual and corporate, and of the great value of skilled labor.

Attention should be called to local illustrations of important geographical features. Plans and maps of the school-room, and one floor of the school building should be prepared by the teacher and pupils working together. The exercise should be made an introduction to a study of a map of The City of New York and vicinity.

Local History—Stories connected with the early history of The City of New York should be told or read by the teacher or by the class; discovery and settlement of Manhattan Island and neighboring territory; the Hudson river; advantages of Manhattan as a trading post; the fur trade. New York under the Dutch; old colonial days

in New York; characteristics of the people; their dress, customs, occupations and means of travel. Emphasis should be given to such biographical narratives and anecdotes as best indicate their characteristics.

The Earth—The earth as a whole, studied from a globe; its form; the effect of its daily motion; natural divisions of land and water; relative positions of the grand divisions; size of each expressed in simple ratios; surface diversities, continental highlands and resultant great slopes. Points of the compass.

Aids—Globe, outline and relief maps, sand and sand tables, pictures and other illustrative material, geographical readers and other books of reference.

Note—Special attention should be given to the representation and illustration of all geographical features not actually observed. Emphasis should be laid upon the value of excursions and visits to the fields, parks and museums, to the docks and water fronts, to centres of local industry, manufacturing establishments and sources of supply, and to historical localities, buildings, monuments and tablets. Constant appeal should be made to the observation and individual judgment of pupils, with frequent use of illustrative material.

COURSE OF STUDY IN ELEMENTARY SCIENCE OR NATURE STUDY.

Animals—Various types of animals, including cold-blooded animals, birds and insects. Animal products; uses of animals.

Earth Study—Elementary study of metals and minerals.

Syllabus.

Spiders—Web, prey, enemies, means of defense; egg-cases; hatching of eggs; comparison with insects.

Snails or Slugs—Habitat; food; manner of feeding; characteristic parts; locomotion; trail; enemies; means of defense.

Oyster, Clam—Habitat; food; manner of feeding; characteristics parts. Comparison of snails or slugs with clam.

Earthworms—Habitat; form; color; food; segments; uses; enemies; comparison with caterpillar. Earthworms may be kept in pots of earth in class room and observations made of their locomotion, castings, and feeding habits.

Animals Useful to Man—Birds, bats, toads, frogs, fish, turtles, ladybugs, beetles, dragon-flies, bees, cochineal bugs, sheep, cow, goat, hen, goose, duck, ox, horse, donkey, mule, camel. Particular emphasis should be placed on their value to man (1) as destroyers of injurious insects; (2) as the source of supply of useful materials, including materials for clothing, food, furniture and ornaments; (3) as beasts of burden.

Animals Harmful to Man—Cut-worm, potato beetle, cabbage worm, leaf roller, leaf miners, plant lice, army worms, gipsy moth, codling moth, beetles, tent caterpillars, canker worms, clothes moths, cockroach, flies, bedbugs, ants, mosquito, snails, slugs,

rats, mice. Particular emphasis should be placed upon their injuries to man; harmful stage; extermination; work of the government in destroying pests.

Earth Study—Collection of metals and minerals for class study; distinguishing characteristics and uses of slate, marble, granite, mica, quartz, aluminum and sandstone; elementary classification.

COURSE OF STUDY IN DRAWING AND CONSTRUCTIVE WORK.

Free-hand representation of objects; exercises illustrative of other branches of study. Constructive work from drawings; decorative design and its application. Color. Study of pictures and other works of art.

Syllabus.

Free-hand Representation—Pencil, crayon, charcoal or brush used. Objects drawn should be from nature, such as grasses, leaves, flowers, vegetables, trees or animals; or consist of familiar cylindrical and prismatic forms, such as lantern, bowl, can, box (facing and turned).

The aim should be to develop habits of observation and judgment as to the character and comparative proportions, by means of drawings of good size and placing. In drawing cylindrical and prismatic forms, special attention should be given to direction of line, and relative proportions of faces seen; in plant form drawing, to the characteristics of growth. Individual models should be used where possible; direction of lines should be tested by pencil holding. Lines of good quality should be sought.

Illustrative Exercises—Crayon, charcoal, pencil or brush used. The illustrations made should represent ideas developed in the study of various branches, the drawings made being consequent and incidental to the lessons studied.

The aim should be to accustom the child to express graphically, such ideas as a test of the clearness of his conception, and to develop correct concepts of relations and proportions, the emphasis being placed on the necessity of individual expression.

Constructive Work and Design—Oak tag, bogus or cartridge paper, gingham, straw board or other appropriate material used. The forms used should be suggested by the pupil's needs and interests in school or at home. Decorations, when applied, should consist of original modifications of geometric units or units derived from natural forms.

The aim should be to secure dexterity in handling and accuracy in measurements, and to develop appreciation of beauty in form and line, as embodied in units designed for the decoration of constructed forms. In measurements, minute fractions of inches should be avoided as far as practicable. All forms should be analyzed previous to their construction, in order that the necessary plans may be developed. Pupils should be encouraged to make at home original models, showing modifications of the forms made in the class-room.

Color—Water color and chalk should be used, and the materials employed in design. The aim should be to develop appreciation of combinations of tones of the

same color. Warm and cold colors should be distinguished. The color instruction should be incidental to the work in drawing, design and construction.

Study of Pictures—The works presented should be well known examples, illustrating home and animal life. The study should continue to be informal, with a view to relating the child's interests to the ideas expressed.

COURSE OF STUDY IN PHYSICAL TRAINING.

Physical Training—Gymnastic exercises and games, and correct hygienic habits.

Hygiene—Need of pure air; ventilation, rest and sleep. General structure of the body; care of eyes, ears, nails and hair. Effects of alcohol and narcotics.

Syllabus.

Gymnastics and Games—See special syllabus.

Hygiene—Pupils should be taught the value of pure air; the causes of impure air; the methods of purifying the air; the effects of impure air on respiration, nutrition, feelings and mental power; necessity of cleanliness in and about the school building. They should be taught the necessity of a proper ventilation of rooms; the necessity of an even temperature, of a change of air, and of the avoidance of drafts; the importance of pure air in sleeping rooms; the value of rest and sleep, and of a change of activity as related to rest.

They should be taught the care of the eyes; the effect of strong light upon sight; the proper position of the book or paper in reference to light while one is reading; the best styles of book print, the importance of periodical examination of the eyes, and the selection of glasses.

Effects of alcohol and narcotics.

COURSE OF STUDY IN MUSIC.

Thorough review of the preceding work; study of the keys of A A flat and E, with their signatures; introduction of flat seven; song singing at sight from books.

Syllabus.

The review should embrace every step from the first exercises in tone relationship. New exercise and song material should be used, in order that the interest of the pupils may be maintained and that mere rote singing of the exercises learned in former grades may be prevented.

The keys A A flat and E should be taught in a manner similar to that used in the preceding grades. Flat seven from the tone below should be introduced and compared with 3, 4, 3, on the same pitch. Dictation and ear tests on flat 7 should be given and used in songs and exercises for reading.

Pupils should sing songs at sight without first using "singing names." In case of difficult intervals they should be prepared by preliminary drill.

What the Above Course of Study Means to a Boy of 10 Years of Age.

When it is remembered that teachers are held responsible for so much work in the several branches as may be outlined in their respective syllabuses, it must seem doubtful whether any one of them can, even under the most favorable circumstances, comply with the requirement.

Look, for instance, at the above shown syllabus in mathematics, and consider whether the average pupil ten years of age should be expected to meet its requirements in the one hundred recitations of thirty minutes each possible in a twenty weeks' term, and that at a time when a goodly share of his attention is claimed by each of six other more or less exacting studies. A similar condition, which must, of necessity, be one of more or less constant hurry from one thing to another without sufficient time for any, obtains throughout the entire eight years' course of study. Teachers can do little to shield the pupil from the hardships of this condition, since they retain their positions upon condition of doing their utmost to hold him to the requirements of the prescribed course of study.

If reference be made to the foregoing printed schedule, according to which the 1,500 minutes of time in a school week are to be apportioned among the different branches of study, a schedule which principals and teachers are required to observe strictly, it will be seen that in Grade 4A, 450 minutes a week are assigned to English, including penmanship; 150 minutes to mathematics, 135 to geography, 90 to elementary science, or nature study; 180 to drawing and constructive work, 165 to physical training and hygiene, and 60 minutes to music. The remaining 270 minutes of the school week are assigned as follows: 75 to opening exercises; 135 for study, and 60 as unassigned time.

It would seem that if a greater portion of time were devoted to essentials, the change would not only redound to the benefit of the school system, but also afford an opportunity for a considerable reduction in the expense of maintaining it.

STAPLE BRANCHES OF ELEMENTARY EDUCATION.

In the very able report promulgated some years ago by the distinguished "Committee of Fifteen," of which Dr. Maxwell, present City Superintendent, was Chairman, English, mathematics, geography and history are well styled "the staple branches of the elementary course of study," and "declared to be the "branches upon which the disciplinary work of the elementary school is concentrated." It is none the less true that, through the prosecution of these very branches of study must be acquired, if at all, the information or learning essential to that intelligence which the pupil is presumed to attain in the elementary schools. The amount of work deemed necessary to their successful prosecution is suggested in the elaborate outline of the course of study now under consideration. And will any one presume to say that such work might not be better done if more time were devoted to it, or that the schools or pupils would suffer injury from a more efficient prosecution of the admittedly staple branches of study?

CONCLUSIONS.

The actual saving in dollars and cents would depend, of course, upon the extent to which special branches of study were dispensed with, upon the cost of books and other supplies consequently no longer required, and upon the amount of the salaries now paid to those supervisors and special teachers whose services might no longer be called for. The expenditure for salaries alone now amounts to more than \$400,000 annually, as shown by the following:

STATEMENT OF SALARIES PAID FOR INSTRUCTION IN SPECIAL BRANCHES.

Physical training, 4 Directors and 22 Assistants.....	\$37,600 00
Cooking instruction (special), 1 Director and 32 Assistants.....	38,200 00
Sewing, 2 Directors and 54 Assistants.....	66,500 00
Manual training, 1 Director and 28 Assistants.....	39,200 00
Drawing and constructive work, 2 Directors and 26 Assistants.....	41,560 00
Music, 3 Directors and 52 Assistants.....	84,680 00
Shop work	43,290 00
German, 48 Special Teachers.....	67,700 00
French, 10 Special Teachers.....	13,800 00
Total.....	<u>\$432,530 00</u>

A simpler course of study would, moreover, require less labor on the part of superintendents, the number of whom might possibly be reduced, even under existing conditions, without injury to the schools.

The salaries of the twenty-six District Superintendents, at \$5,000 each, amount to \$130,000, while those of their clerks, ranging from \$600 to \$900, amount to over \$15,000 more. It would seem that the City Superintendent together with the eight Associate Superintendents, might attend to most of whatever supervising is needed by competent principals, and the latter to all that is needed by the teachers in their respective schools. A competent teacher needs more letting alone than supervising, of which, together with statistical reporting, there seems to be at present a tantalizing and expensive superfluity.

Respectfully,

(Signed)

JOHN S. CROSBY,

ROBERT B. McINTYRE,

Investigations Division.

REPORT No. 3.

School Officials and Employees Authors of Text-books--Which are Liberally Used by the School Principals Growth of a Profitable Industry.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions, an examination has been made as to the matter of text-books purchased by the Department of Education for use in the public schools. Particular attention has been given in this examination to the practice of using text-books of special authorship, in which school officials or employees appear to be interested as holders of copyrights. The facts disclosed in said examination are herewith presented.

From an inspection of accounts kept in the office of the Superintendent of School Supplies it appears that 50.24 per cent. of the total appropriations for supplies for all boroughs in 1902 was expended for text-books, and that 44.08 per cent. of the appropriation for 1903 was so expended, as shown by the following statement:

1902.

Total amount of appropriation for all boroughs for 1902.....	\$1,022,375 29
Less transfer to Incidental Fund	22,500 00
Net amount	\$999,875 29
Expended for text-books	502,344 67
	<u>50.24 per cent.</u>

1903.

Manhattan—	
Appropriation	\$511,429 70
Less transfer	450 00
	<u>\$510,979 70</u>
Bronx—	
Net amount	88,290 00
	<u>\$599,269 70</u>
Expenditure for text-books, Manhattan and The Bronx.....	261,985 74
	<u>43.71 per cent.</u>
Brooklyn—	
Appropriation	\$382,020 00
Less transfer	38,000 00

Brooklyn—

Net amount	\$344,020 00
Expenditure for text-books, Brooklyn.....	155,563 36
	<u>45.22 per cent.</u>

Queens—

Appropriation	\$78,741 42
Less transfer	13,000 00
Net amount	\$65,741 42
Expenditure for text books, Queens.....	27,259 17
	<u>41.46 per cent.</u>

Richmond—

Appropriation	\$24,685 23
Plus transfer	500 00
Net amount	\$25,185 23
Expenditure for text books, Richmond.....	8,126 66
	<u>32.26 per cent.</u>

Total amount for all boroughs for 1903.....	\$1,009,031 12
Expenditure for text books, all boroughs.....	441,808 27
	<u>44.08 per cent.</u>

The new course of study which went into effect in September, 1903, made necessary the purchase of a large number of books to take the places of those formerly in use. The appropriation for 1903, however, was almost depleted and a great many of the purchases had to be deferred until the 1904 appropriation was available.

WHO THE PRINCIPAL TEXT BOOK CONTRACTORS ARE.

Following is a statement showing the amounts paid for text books to the principal book contractors in 1902 and 1903, as shown by an examination of the records of the Finance Department, made on January 18, 1904:

	1902.	1903.*	Total.
American Book Company.....	\$140,799 58	\$105,909 32	\$246,708 90
Richard S. Thomas.....	62,889 76	59,267 15	122,156 91
Maynard, Merrill & Co.....	35,725 53	30,002 10	65,727 63

	1902.	1903.*	Total.
Silver, Burdett & Co.....	\$34,677 34	\$26,999 53	\$61,676 87
D. C. Heath & Co.....	33,198 66	18,654 48	51,853 14
The MacMillan Company.....	25,192 93	23,567 67	48,760 60
Richardson, Smith & Co.....	26,176 35	17,828 39	44,004 74
University Publishing Company.....	16,036 11	9,150 64	25,186 75
Rand, McNally & Co.....	11,813 94	7,591 25	19,405 19
Albert F. Houghton.....	7,347 75	11,958 14	19,305 89
Charles Holt	6,381 82	11,012 27	17,394 09
D. Appleton	5,355 04	8,449 92	13,804 96
Educational Publishing Company.....	4,213 44	4,507 79	8,721 23
Globe School Book Company.....	3,620 21	5,006 45	8,626 66
Charles Scribner's Sons.....	2,512 84	3,358 95	5,871 79
A. Lovell & Co.....	3,529 92	1,120 42	4,650 34
Allyn & Bacon.....	3,475 85	1,054 51	4,530 36
J. P. Lippincott.....	1,678 79	.....	1,678 79
Mutual Book Company.....	745 81	547 95	1,293 76
Sibley & Ducker.....	262 92	.....	262 92
	\$425,634 59	\$345,986 93	\$771,621 52

*The amounts for 1903 represent only the payments made to January 18, 1904, many claims to be charged to the 1903 appropriation not having been forwarded to the Department of Finance for payment up to that date.

SCHOOL OFFICIALS AND EMPLOYEES AS AUTHORS OF TEXT BOOKS USED IN THE SCHOOLS.

Prior to 1902 it had been the practice, in preparing lists of the text books to be used in the different boroughs, to make a separate list for each borough. In February of that year, pursuant to the general plan of centralization required by law, it was resolved by the Board of Superintendents

—"that the Board of Superintendents request the Board of Education to adopt, for use in the schools of the boroughs, a list of text books, apparatus, etc., to be made up by the consolidation of the separate lists now available for use in the several boroughs."

It is learned that objection was made in the Board of Superintendents to the adoption of this resolution on the ground that it would extend and introduce into all the boroughs, particularly into Manhattan and The Bronx, the practice of approving and virtually recommending, for use in the public schools, text books in which officials and employees of the Board of Education are interested as authors or otherwise. The resolution was decided in the affirmative by the following vote:

Affirmative—Messrs. Stevens, Davis, Marble, Higgins, Yetman, Walsh and O'Brien

—7.

Negative—Messrs. Maxwell and Jasper—2.

From the way in which Dr. Maxwell, the City Superintendent of Schools, voted on the resolution it might appear that he was opposed to the practice objection to which had been made as above stated, or at least to the extension of it throughout the boroughs, and yet, on the other hand, it would also seem that, had his opposition been as pronounced as it may have been sincere, his reputed influence with members of the Board might have brought about a modification of the resolution eliminating the objectionable practice. He may, however, have voted as he did for other reasons than that suggested.

The resolution was approved by the Board of Education, and the consolidated list of books approved for use in all boroughs now contains quite a number of books the authors of which are understood to be officials or teachers in the employ of the Board of Education. Such books are herein designated generally as "the Special List of Text Books," being those in which officials or teachers in the employment of the Board of Education are supposed to be interested as authors.

It may be here noted that, although the use of such books may as yet be comparatively limited, the practice is one susceptible of almost unlimited extension.

When we consider the pressure, direct and indirect, which may be brought to bear upon school principals, ostensibly free and independent, influencing them to adopt particular books, it is evident that it would not take long for an influential coterie of school officials, if so disposed, to foist upon the City a list of text books of which their own would eventually be the only ones practically in use.

And although the pecuniary advantage such officials might thus enjoy by reason of their position should be a matter of serious consideration, it is by no means the only one to be considered in this connection. Wise statutory provisions prohibit the teaching or inculcating in the public schools, through text books or otherwise, of any religious or sectarian doctrines or tenets. No less objectionable, and quite as dangerous to liberty and free institutions, would be any concerted or undue attempt to use the public schools as a means of popularizing any particular economic, social or political theories, dogmas or doctrines with a view to thereby moulding public opinion upon such more or less important but yet debatable subjects. But if the public school text books were to be prepared by a set of men not selected or put in office for that purpose, and not subject to any direct criticism except their own in regard to such books, what would be easier, if desired, than by concert of purpose and action so to plan and construct such books that their subtle influence constantly exerted through all the years of youth would finally result in the artificial and arbitrary formation of a public opinion imposed upon the people through such prostitution of the public school system?

In regard to the questions, subjects and matters referred to, it is the function of the public schools not to provide the pupil with this or that opinion, but rather to develop in him the ability to form an intelligent opinion for himself and, with such ability, if possible, the habit of exercising it.

The following statement contains a list of officials and teachers said to be employed by the Board of Education, and understood to be authors of books used in the schools, or at least upon the approved list of text books. It has been impossible to prepare a thoroughly reliable list of such persons, and the one given may contain some names that ought not to appear. It is, moreover, more than likely that some that should appear have been omitted from the list.

LIST OF SCHOOL OFFICIALS AND TEACHERS WHOSE TEXT BOOKS ARE ON THE APPROVED LIST.

Name.	Position and when Appointed.	Salary.
Maxwell, William H.....	City Superintendent, October 10, 1882	\$8,000 00
Smith, George J.....	Examiner, September 28, 1898....	5,000 00
Kuttner, Bernhard.....	Teacher of German, April 30, 1884..	1,600 00
Walsh, John H.....	Associate Superintendent, October, 1880	6,000 00
Damrosch, Frank.....	Director of Music, May 5, 1897....	4,000 00
Meleney, Clarence E.....	Associate Superintendent, July 1, 1896	5,500 00
Rix, Frank R.....	Director of Music, September 2, 1893	3,900 00
Williams, Mary E.....	Director of Cookery, Manhattan and The Bronx, October 7, 1896..	2,500 00
Caswell, Albert S.....	Director of Music, Brooklyn, September 1, 1876.....	4,000 00
Gunnison, Walter.....	Principal Erasmus High School, September 1, 1896.....	5,000 00
Johnston, E. L., Miss.....	Principal No. 140, Brooklyn, April, 1883	2,500 00
Lewis, Leroy F.....	Principal No. 11, Brooklyn, September, 1863.....	3,500 00
Patterson, Calvin*.....	Principal Girls' High School, Brooklyn, September 1, 1873.....	5,000 00
Ward, Edward G.*.....	Superintendent, Brooklyn, September 1, 1879.....	6,000 00
Coe, Ida.....	Teacher No. 46, Brooklyn, November, 1883.....	1,600 00
Stewart, Seth T.....	District Superintendent, July 1, 1896	5,000 00
Witherbee, Joseph V.....	Principal No. 106, Brooklyn, February, 1887.....	3,500 00
Furey, Charlotte F.....	Music Teacher, Brooklyn, December 1, 1896.....	1,400 00

*Deceased.

Following is a recapitulation of Schedules A, B and C hereto attached, and containing approximate information in regard to the purchase in 1902, 1903 and 1904 of books appearing on the so-called Special List of Text Books.

RECAPITULATION OF

Showing the Number of Volumes and Cost of Text Books of Special Authors Purchased to January

Authors.	1901.		19
	No. of Volumes.	Cost.	No. of Volumes.
Maxwell	36,989	\$13,575 08	43,406
Walsh	21,163	7,099 67	14,343
Meleney & Giffin.....	767	138 06	812
Rix	3,646	2,187 60	1,723
Williams & Fisher.....	2,671	2,136 80	767
Farley & Gunnison.....	2,187 dozen	1,257 30	{ 3 pkgs. 1,267 dozen
Phelps & Lewis.....	2,101	945 45	980
Furey	1,570	471 00	377
Ward	50,171	13,562 34	39,515
Stewart & Coe.....	844	168 80	3,246
Witherbee	8 dozen	4 64	.....
Patterson .....	.....	.....	188
Caswell & Ryan.....	.....	.....	.....
Kuttner .....	.....	.....	.....
		<hr/>	
		\$41,546 74	

SCHEDULES A, B AND C.

chased and Charged to the Special School Fund Supplies Account of 1902, 1903, and 15, 1904.

03.-----	-----1904 to January 15.-----		Total	Total Cost
Cost.	No. of Volumes.	Cost.	No. of Volumes.	1902 to January 15, 1904, Inclusive.
\$16,274 65	17,517	\$6,940 86	97,852	\$36,790 59
4,829 55	11,158	3,836 58	46,664	15,765 80
146 16	612	95 40	2,193	379 62
1,033 80	140	88 20	5,509	3,309 60
613 60	121	96 80	3,559	2,847 20
610 11	180 dozen	87 25	{ 3 pkgs. 3,635 dozen	1,954 66
441 00	273	137 50	3,356	1,523 95
113 10	99	29 70	2,046	613 80
10,173 85	11,476	3,794 45	101,162	27,530 64
649 20	728	152 88	4,818	970 88
.....	85 dozen	49 30	93 dozen	53 94
75 20	.....	.....	188	75 20
.....	100	78 00	100	78 00
.....	165	66 00	165	66 00
<hr/> \$34,960 22		<hr/> \$15,452 92	<hr/> 267,610 vols. 3,728 dozen 3 pkgs.	<hr/> \$91,959 88

The above figures may fairly be said to represent only the purchases made during 1902, 1903 and 1904 for replenishing, in a number of instances the classes having been presumably supplied with full complements of the several books, the names of which are included in the above list.

BOOKS DROPPED FROM THE LIST.

Brown's Grammar.

In order to improve the somewhat multifarious and conglomerate character of the list of text-books that resulted from the consolidation of the different borough lists, it was perhaps wisely decided to eliminate certain books from the list for 1904. In the process of elimination it was not altogether the unexpected that happened. Attention has not been called to the dropping, if any, of books whose authors are in the employ of the Board of Education. Superintendent Maxwell's text-books in English have been retained, while Brown's have been discontinued. While it is not the province of this Division to pass upon the relative merits of the two sets of books, in regard to which there is understood to be a difference of opinion among teachers, it may be remarked that, in view of the circumstances under consideration, the probabilities of Dr. Maxwell's books being replaced by any other, however meritorious, are at least remote.

It appears from information received, that in the year 1901 there were purchased	
Of Brown's "First Lines"	1,091 copies
And of Brown's "Institutes of Grammar"	604 copies
In 1902, of "First Lines"	4,451 copies
And of the "Institutes"	3,414 copies
And in 1903, of "First Lines"	4,229 copies
And of the "Institutes"	1,312 copies

Also, that in the first six months following the merging of the different borough lists in 1902, orders given to contractors for the Maxwell publications were as follows:	
Maxwell's "First Book in English"	5,200 copies
Maxwell's "Introductory Lessons in English"	2,350 copies
Maxwell's "Advanced Lessons in English Grammar"	1,752 copies
Maxwell's "Primary Lessons in Language and Composition"	38 copies
Maxwell and Smith's "Writings in English"	236 copies

Total.....	9,576 copies
------------	--------------

As an instance of the subtle influence that may be exerted in the interest of favored text books, as against others on the approved list, carrying with it of necessity a tendency to eventually crowd the latter from the list, and that, as it might seem, without serious protest on the part of those profiting thereby, may be mentioned the volume published by the American Book Company containing the "Course of Study for Elementary

Schools, adopted by the Board of Education, New York City, May 27, 1903, with Syllabuses as adopted by the Board of Superintendents, New York City, June 18, 1903 * * printed from the original forms," to which is appended "a graded list of text books authorized for use in the primary, grammar and evening schools of The City of New York." If reference be made to the list of text books in English composition and grammar it will be seen that Superintendent Maxwell's book or books stand at the head of each of the sixteen separate lists designated as respectively appropriate for use in the sixteen different grades of the eight-year course in the elementary schools. This list, put forth by Dr. Maxwell's publishers in connection with a fac simile reproduction of the courses of study and syllabuses officially furnished principals and teachers, can hardly be interpreted by them otherwise than as indicating at least no unwillingness on the part of the Superintendent that his books should be given the preference.

This under-the-law perfectly legitimate business enterprise on the part of his publishers is not here cited with a view to casting any discredit upon Superintendent Maxwell, who may be as sincerely opposed as any one to the exercise of undue influences in favor of his own, or the books of any other author, but rather to suggest how inevitable it is that principals and teachers will be more or less influenced in one way and another in favor of books in which school officials are known to be interested.

For instance, what more natural for those preparing a course of study than that they should even unconsciously make it more or less conformable to the peculiar requirements of text books of their own writing? And to whatever extent this should be done would it not necessarily follow that examinations for pupils and teachers would thereafter be framed more or less in accordance with the peculiar methods and phraseology of such books, rendering their use virtually a necessity to high rank or promotion? An imperfect illustration appears from information furnished to the effect that Miss E. L. Johnston, Principal of School 140, of Brooklyn, acted as chairman of the committee charged with the duty of preparing the syllabus in English grammar. While it is probable that a better qualified or more efficient chairman for that committee could not have been found, the fact that she is one of the co-authors of that admittedly excellent text book, Maxwell and Johnston's School Composition, would, not unnaturally or improperly, tend toward the shaping of any course of study in English which she might help to formulate more or less in accordance with the peculiar matter and thought of that meritorious work.

Although ostensibly the result of a general conference of principals and heads of departments of study, it would appear from statements of persons presumably familiar with the method of formulating the course of study that only certain principals were called into such conference, and that while some of them participated in outlining the scheme of study the majority of them were asked to participate merely in preparing the several syllabuses.

SPIRIT OF THE GENERAL SCHOOL LAW.

It is no doubt a sense of the importance of affording the schools of the City the advantage of the best text books to be had, no matter who their authors may be, that has led to the exemption of authors of school books from the provisions of section 1098 of the Charter, prohibiting school officials from having any interest in the furnishing of school supplies. This exception is perhaps the only one of the kind to be found in the Charter and would seem to be hardly in keeping with the spirit or letter of the general school law of the State, as evidenced by section 12, title 5, of the Consolidated School Law, chapter 556, Laws of 1894. The section is as follows:

"No school commissioner shall be directly or indirectly engaged in the business of a publisher of school books, maps or charts, or of a bookseller, or in the manufacture or sale of school apparatus or furniture; nor shall he act as an agent for an author, publisher or bookseller, or dealer in school books, maps or charts, or manufacturer of or dealer in any school furniture or apparatus; nor directly or indirectly receive any gift, emolument, reward or promise of reward, for his influence in recommending or procuring the use of any book, map or chart, or school apparatus or furniture of any kind whatever, in any common or union free school, or the purchase of any books for a school district library. Any violation of this provision or any part thereof, shall be a misdemeanor; and any such violation shall subject such commissioner to removal from his office by the superintendent of public instruction."

The only way out of this dilemma of choice between two evils, that of depriving the schools of desirable text books or of competent educators who may be their authors, and that of allowing school officers to be interested in the sale of such books, would seem to be either the outright sale and transfer, by officials and teachers, of any interest they may have in such books, which is said to have taken place in the case of Walsh's series of mathematics, or the surrender to the City of any royalties received from such books, as in the case of Professor Caswell.

INCIDENTAL EFFECTS OF CHANGES MADE.

As incidental to investigation being made as to the probable amount of school text books and other scholastic supplies, the discarding of which has been made necessary by the adoption of the new course of study, it has been learned that since the examination by the Department of Finance was started, an order has been issued to the District Superintendents requiring them to visit each school and prepare complete inventories of the books and other supplies to be found in the school stock room. The order, it seems, makes it obligatory upon District Superintendents to make their own examination and report, irrespective of the records or any previous reports of the school principals.

It may also be noted that the new plan of having contractors deliver books directly to the schools, instead of at the depository of supplies as formerly, will entail considerable additional expense, owing not only to the consequent necessity of additional auditing and bookkeeping, but also to the fact that contractors have deemed it necessary

to advance the price of books some two or three cents per volume to cover the extra cost of delivery.

Mention may be here made of the fact that jobbers succeed in purchasing school books at a considerably lower figure than that at which they are furnished under contract with the City. This may be a necessary incident to the course of trade, but it would seem that so large a purchaser as the City should enjoy the benefit of the lowest price at which a fair profit can be made by the publishers.

Attention is also called to what seems to be the fact that, in apparent violation of a regulation of the Board, book contractors not only solicit patronage for their goods in prospectuses and letters sent to the principals, but that a personal canvass is sometimes made at the schools. Such practice is, of course, not to be countenanced.

Respectfully,

(Signed)

JOHN S. CROSBY,

ROBERT B. McINTYRE,

Investigations Division.

SCHED

Being a Detailed Statement Showing the Number and Cost of Volumes of Text Books
Boro

Title of Book.	No. on Text Book List, 1902.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Maxwell & Smith's Writings in English.....	845	1,468	1,561
Maxwell's First Book in English.....	846	6,827	4,530
Maxwell's Advanced Lessons in English....	849	2,514	2,430
Maxwell's Introductory Lessons in English..	848	5,033	5,937
Maxwell & Johnson's School Composition....	.....	.....	.....
Maxwell's Primary Lessons in Language and Composition	850	265	706
Totals.....	.....	.....	.....
Walsh's Elementary Arithmetic, Part I.....	121	264	5,389
Walsh's Intermediate Arithmetic, Part II....	122	864	6,992
Walsh's Higher Arithmetic, Part III.....	123	414	3,804
Walsh's Teachers' Manual of Arithmetic....	4,452	.....	101
Totals.....	.....	.....	.....
Meleney & Giffin's Selected Words.....	610	12	.....
Meleney & Giffin's Dictation and Language Lessons	609	477	.....
Totals.....	.....	.....	.....
Rix's Songs of the School and the Flag.....	2,273	72	2,524
Totals.....	.....	.....	.....
Elements of the Theory and Practice of Cookery, Williams & Fisher.....	1,887	2,486	149
Totals.....	.....	.....	.....
Farley & Gunnison's First Steps, A. B.....	550	203 doz.	60 doz.
Farley & Gunnison's First Steps, C. D.....	551	301 doz.	80 doz.
Farley & Gunnison's Standard Course, 1, 2, 3, 4, 5, 6	552	281 doz.	90 doz.
Farley & Gunnison's Movement Course, 1, 2.	554	.....	.....
Farley & Gunnison's Alternate, 1, 2, 3, 4, 5, 6	555	.....	.....
Farley & Gunnison's Short Course, 1, 2, 3, 4, 5, 6	556	129 doz.	60 doz.
Farley & Gunnison's Business and Social Forms, 1 and 2.....	557	97 doz.	50 doz.
Farley & Gunnison's Intermediate Slant, 1, 2, 3, 4, 5, 6.....	562	766 doz.	.....
Farley & Gunnison's Intermediate Slant, 7 Movement	562a	26 doz.	.....
Farley & Gunnison's Intermediate Slant, 8 Business Forms.....	562a	.....	.....
Farley & Gunnison's Business Forms, No. 1..	563	.....	.....
Farley & Gunnison's Practice Paper, 1, 2, 3, 4, 5, 6.....	565	.....	.....
Totals.....	.....	.....	.....
Phelps & Lewis's Song Sheaf.....	2,140	3	2,098
Totals.....	.....	.....	.....

ULE "A."

*ks of Special Authorship Purchased During the Calendar Year 1902 in the Several
ugh.*

mes Ordered, 1902.—		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Queens.	Richmond.				
.....	3,029	\$0 60	\$1,817 40	
1,663	239	13,259	32	4,242 88	
1,259	193	6,396	48	3,070 08	
1,600	254	12,824	32	4,103 68	
.....	
450	1,421	24	341 04	
.....	36,029			\$13,575 08
.....			
1,436	266	7,355	25	\$1,838 75	
1,306	248	9,410	29	2,728 90	
100	80	4,398	55	2,418 90	
.....	1 12	113 12	
.....	21,163			7,099 67
.....			
278	290	18	\$52 20	
.....	477	18	85 86	
.....	767			138 06
.....			
1,000	50	3,646	60	\$2,187 60	
.....	3,646			2,187 60
.....			
36	2,671	80	\$2,136 80	
.....	2,671			2,136 80
.....			
8 doz.	271 doz.	50 doz.	\$135 50	
.....	381 doz.	60 doz.	228 60	
.....	371 doz.	80 doz.	296 80	
.....	1 00 doz.	.....
.....	80 doz.	.....
.....	189 doz.	60 doz.	113 40	
3 doz.	150 doz.	1 00 doz.	150 00	
34 doz.	800 doz.	40 doz.	320 00	
.....	26 doz.	50 doz.	13 00	
.....	50 doz.	.....
.....	1 00	.....
.....	* 30	.....
.....	2,188 doz.			1,257 30
.....			
.....	2,101	45	\$945 45	
.....	2,101			945 45
.....			

*Per 500 sheets.

Title of Book.	No. on Text Book List, 1902.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Patterson's Elements of Grammar and Com- position	866	.....	.....
Recreation Songs (Furey).....	2,253	.....	1,570
Totals.....	.....	.....	.....
Ward's Rational Method in Reading, Part I.	3,416	.....	5,624
Ward's Rational Method in Reading, Part II.	3,417	.....	5,003
Ward's Rational Method in Reading, Complete	3,418	463	2,448
Ward's Rational Method in Reading, Part I., First Reader.....	3,419	.....	4,430
Ward's Rational Method in Reading, Part II., First Reader.....	3,420	.....	3,023
Ward's Rational Method in Reading, Com- plete, First Reader.....	3,421	84	6,233
Ward's Rational Method in Reading, Part I., Second Reader.....	3,422	.....	3,015
Ward's Rational Method in Reading, Part II., Second Reader.....	3,423	.....	3,022
Ward's Rational Method in Reading, Com- plete, Second Reader.....	3,424	2	4,633
Ward's Rational Method in Reading, Com- plete, Third Reader.....	3,430	2	4,947
Ward's Phonetic Cards, set One.....	3,426	.....	348
Ward's Phonetic Cards, set Two.....	3,427	.....	324
Ward's Phonetic Cards, set Three.....	3,428	.....	239
Ward's Manual of Instructions.....	3,429	33	281
Totals.....	.....	.....	.....
Stewart & Coe's First Days in School.....	3,377	.....	646
Totals.....	.....	.....	.....
Witherbee's Common Sense Copy Books, 1, 1½, 2½, 3, 3½, 4, 5, 6.....	509	.....	.....
Totals.....	.....	.....	.....

1902.

No. of Volumes.	Author.	Total Cost of Books by Authors' Names.
36,929	Maxwell	\$13,575 08
21,163	Walsh	7,099 67
767	Meleney & Giffin.....	138 06
3,646	Rix	2,187 60
2,671	Williams & Fisher.....	2,136 80
2,188 dozen	Farley & Gunnison.....	1,257 30
2,101	Phelps & Lewis.....	945 45
1,570	Furey	471 00
50,171	Ward	13,562 34
844	Stewart & Coe.....	168 80
8 dozen	Witherbee	4 64
		<hr/> \$41,546 74

Ordered, 1902.		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Queens.	Richmond.				
.....	.....	.....	\$0. 40	.....
.....	.....	1,570	30	\$471 00	
.....	.....	1,570			\$471 00
.....	.....	5,624	18	\$1,012 32	
.....	.....	5,003	20	1,000 60	
1,629	673	5,213	30	1,563 90	
.....	.....	4,430	18	797 40	
.....	.....	3,023	20	604 60	
1,351	479	8,147	30	2,444 10	
.....	.....	3,015	20	603 00	
.....	.....	3,022	24	725 28	
717	410	5,762	37	2,131 94	
388	325	5,662	40	2,264 80	
1	8	357	30	107 10	
.....	10	334	40	133 60	
.....	8	247	30	74 10	
12	6	332	30	99 60	
.....	.....	50,171			13,562 34
198		844	20	\$168 80	
.....	.....	844			168 80
.....	8 doz.	8 doz.	58 doz.	\$4 64	
.....	.....	8 doz.			4 64
					\$41,546 74

Being a Detailed Statement Showing the Number and Cost of Volumes of Text Books
Boro

Title of Book.	No. on Text Book List, 1903.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Maxwell & Smith's Writings in English....	4,215	1,046	55
Maxwell's First Book in English.....	386	5,479	1,908
Maxwell's Advanced Lessons in English.....	388	6,908	3,051
Maxwell's Introductory Lessons in English....	387	10,011	3,938
Maxwell & Johnston's School Composition....	390	6,271	55
Maxwell's The Student's Standard Speller....	308	964	1
Maxwell's Primary Lessons in Language and Composition	389	835	362
Totals.....	.....	.....	.....
Walsh's Elementary Arithmetic, Part I.....	74	1,162	3,297
Walsh's Intermediate Arithmetic, Part II....	75	1,288	4,129
Walsh's Higher Arithmetic, Part III.....	76	1,474	1,729
Totals.....	.....	.....	.....
Meleney & Giffin's Selected Words.....	292	578	15
Totals.....	.....	.....	.....
Rix's Songs of the School and the Flag.....	752	170	1,553
Totals.....	.....	.....	.....
Elements of the Theory and Practice of Cookery, Williams and Fisher.....	614	698	69
Totals.....	.....	.....	.....
Farley & Gunnison's First Steps, A. B.....	240	17 doz.	.....
Farley & Gunnison's First Steps, C. D.....	241	102 doz.	6 doz.
Farley & Gunnison's Standard Course, 1, 2, 3, 4, 5, 6.....	242	161 doz.	120 doz.
Farley & Gunnison's Movement Course, 1 and 2.....	243	97 doz.	.....
Farley & Gunnison's Alternate, 1, 2, 3, 4, 5, 6.....	245	92 doz.	.....
Farley & Gunnison's Short Course, 1, 2, 3, 4, 5, 6.....	246	45 doz.	.....
Farley & Gunnison's Business and Social Forms, 1, 2.....	247	.....	.....
Farley & Gunnison's Intermediate Slant, 1, 2, 3, 4, 5, 6.....	252	464 doz.	.....
Farley & Gunnison's Practice Paper, 1, 2, 3, 4, 5, 6.....	257	3 pkgs.	.....
Totals.....	.....	.....	.....
Phelps & Lewis's Song Sheaf.....	642	.....	980
Totals.....	.....	.....	.....
Patterson's Elements of Grammar and Com- position	399	13	175
Totals.....	.....	.....	.....
Recreation Songs (Furey).....	738	1	376
Totals.....	.....	.....	.....
Ward's Rational Method in Reading, Part I., Primer	1,607	1,654	3,971

ULE "B."

*ks of Special Authorship Purchased During the Calendar Year 1903 in the Several
ugh.*

mes Ordered, 1903.—		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Queens.	Richmond.				
125	1,226	\$0 60	\$735 60	
583	7,970	32	2,550 40	
520	10,479	48	5,029 92	
468	14,417	32	4,613 44	
792	7,118	40	2,847 20	
.....	965	21	202 65	
34	1,231	24	295 44	
.....	43,406			\$16,274 65
720	5,179	25	\$1,294 75	
373	5,790	29	1,679 10	
171	3,374	55	1,855 70	
.....	14,343			4,829 55
219	812	18	\$146 16	
.....	812			146 16
.....	1,723	60	\$1,033 80	
.....	1,723			1,033 80
.....	767	80	\$613 60	
.....	767			613 60
4 doz.	21 doz.	40 doz.	\$8 40	
.....	108 doz.	50 doz.	54 00	
4 doz.	285 doz.	63 doz.	179 55	
4 doz.	101 doz.	80 doz.	80 80	
.....	92 doz.	63 doz.	57 96	
.....	45 doz.	50 doz.	22 50	
.....	90 doz.	.....
51 doz.	515 doz.	40 doz.	206 00	
.....	3 pkgs.	30 pkgs.	90	
.....	{ 1,167 doz. }			610 11
.....	{ 3 pkgs. }			
.....	980	45	\$441 00	
.....	980			441 00
.....	188	40	\$75 20	
.....	188			75 20
.....	377	30	\$113 10	
.....	377			113 10
564	6,189	18	\$1,114 02	

Title of Book.	No. on Text Book List, 1903.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Ward's Rational Method in Reading, Part II.	1,608	1,774	2,412
Ward's Rational Method in Reading, Com- plete	1,609	1,640	1,497
Ward's Rational Method in Reading, Part I., First Reader	1,610	1,174	1,650
Ward's Rational Method in Reading, Part II., First Reader	1,611	1,384	1,803
Ward's Rational Method in Reading, Com- plete	1,612	1,512	2,905
Ward's Rational Method in Reading, Part I., Second Reader	1,613	1,002	1,596
Ward's Rational Method in Reading, Part II., Second Reader	1,614	874	1,232
Ward's Rational Method in Reading, Com- plete	1,615	879	2,762
Ward's Rational Method in Reading, Third Reader, Complete	1,616	829	2,970
Ward's Phonetic Cards, Set One	1,617	386	197
Ward's Phonetic Cards, Set Two	1,618	.....	.....
Ward's Phonetic Cards, Set Three	1,619	.....	.....
Ward's Manual of Instructions	1,620	464	51
Totals .....	.....	.....	.....
Stewart & Coe's First Days in School	1,776	2,878	318
Totals .....	.....	.....	.....

1903.

No. of Volumes.	Author.	Total Cost of Books by Authors' Names.	
43,406	Maxwell	\$16,274	65
14,343	Walsh	4,829	55
812	Meleney & Giffin	146	16
1,723	Rix	1,033	80
767	Williams and Fisher	613	60
1,267 doz. }	Farley & Gunnison	610	11
3 pkgs. }		441	00
980	Phelps & Lewis	75	20
188	Patterson	113	10
377	Furey	10,173	85
39,515	Ward	649	20
3,246	Stewart & Coe		
		\$34,960	22

Ordered, 1903. _____		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Queens.	Richmond.				
438	4,624	\$0 20	\$924 80	
275	3,412	30	1,023 60	
339	3,163	18	569 34	
293	3,480	20	696 00	
299	4,716	30	1,414 80	
170	2,768	20	553 60	
182	2,288	24	549 12	
.....	3,641	37	1,347 17	
313	4,112	40	1,644 80	
15	598	30	179 40	
.....	40	.....
.....	30	.....
9	524	30	157 20	
.....	39,515			\$10,173 85
50	3,246	20	\$649 20	649 20
.....	3,246			
					<u>\$34,960 22</u>

Being a Detailed Statement Showing the Number and Cost of Volumes of Text Books

Title of Book.	No. on Text Book List, 1904.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Maxwell & Smith's Writings in English.....	2,287	300	215
Maxwell's First Book in English.....	204	1,296	737
Maxwell's Advanced Lessons in English.....	205	2,786	886
Maxwell's Introductory Lessons in English.....	206	5,413	1,603
Maxwell & Johnston's School Composition....	207	2,939	1,276
Totals.....	.....	.....	.....
Kuttner's German Conversation Course.....	299	164	1
Totals.....	.....	.....	.....
Walsh's New Primary Arithmetic.....	430	1,004	1,276
Walsh's New Grammar School Arithmetic, Part I.....	431	1,782	2,275
Walsh's New Grammar School Arithmetic, Part II.....	432	1,246	1,194
Walsh's New Grammar School Arithmetic, Part III.....	433	415	172
Walsh's Mathematics, Common Schools, Book 1.....	427	60	42
Walsh's Mathematics, Common Schools, Book 2.....	428	453	925
Walsh's Mathematics, Common Schools, Book 3.....	429	.....	206
Totals.....	.....	.....	.....
Meleney & Giffen's Selected Words, Part I...	1,560	84	.....
Meleney & Giffen's Selected Words, Part II..	1,561	480	48
Totals.....	.....	.....	.....
Rix's Songs of the School and the Flag....	575	12	128
Totals.....	.....	.....	.....
Elements of the Theory and Practice of Cookery, Williams & Fisher.....	1,592	52	69
Totals.....	.....	.....	.....
Caswell & Ryan's Time and Tune Book No. 2.	489	.....	100
Caswell & Ryan's The Barcarolle.....	3,410	.....	.....
Totals.....	.....	.....	.....
Farley & Gunnison's First Steps, A. B.....	86	21 doz.	.....
Farley & Gunnison's Standard Course, 1, 2, 3, 4, 5, 6.....	88	15 doz.	.....
Farley & Gunnison's Movement Course, 1 and 2.....	89	12 doz.	.....
Farley & Gunnison's Intermediate Slant, 1, 2, 3, 4, 5, 6.....	93	112 doz.	.....
Farley & Gunnison's Intermediate Slant, 8 Business Forms.....	95	9 doz.	.....
Farley & Gunnison's Practice Paper, 1, 2, 3, 4, 5, 6.....	97	11 pkgs.	.....
Totals.....	.....	.....	.....

*To January 15, inclusive, of the year 1904.

ULE "C."

*ks of Special Authorship Purchased in the Year 1904 (to January 15) in the Several
ughls.*

mes Ordered, 1904.*		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Quecns.	Richmond.				
.....	515	\$0 63	\$324 45	
42	2,075	33	684 75	
.....	3,672	50	1,836 00	
.....	7,016	33	2,315 28	
24	4,239	42	1,780 38	
.....	<u>17,517</u>			\$6,940 86
.....	<u>165</u>	40	<u>\$66 00</u>	66 00
.....	<u>165</u>			
90	2,370	26	\$616 20	
.....	4,057	34	1,379 38	
.....	2,440	39	951 60	
.....	587	56	328 72	
.....	102	26	26 52	
18	1,396	30	418 80	
.....	<u>206</u>	56	<u>115 36</u>	3,836 58
.....	<u>11,158</u>			
.....	84	13	\$10 92	
.....	<u>528</u>	16	<u>84 48</u>	95 40
.....	<u>612</u>			
.....	<u>140</u>	63	<u>\$88 20</u>	88 20
.....	<u>140</u>			
.....	<u>121</u>	80	<u>\$96 80</u>	96 80
.....	<u>121</u>			
.....	100	78	\$78 00	
.....	78	.....	78 00
.....	<u>100</u>			
.....	21 doz.	42 doz.	\$8 82	
.....	15 doz.	65 doz.	9 75	
.....	12 doz.	82 doz.	9 84	
.....	112 doz.	42 doz.	47 04	
.....	9 doz.	92 doz.	8 28	
.....	11 pkgs.	**32	3 52	87 25
.....	{ 169 doz. }			
.....	{ 11 pkgs. }			

**Per package of 500 sheets.

Title of Book.	No. on Text Book List, 1904.	Number of Volumes	
		Manhattan and The Bronx.	Brooklyn.
Recreation Songs (Furey).....	573	46	53
Totals.....	.....	.....	.....
Phelps & Lewis's Song Sheaf.....	570	.....	275
Totals.....	.....	.....	.....
Ward's Rational Method in Reading, Com- plete, Primer	797	1,235	3,357
Ward's Rational Method in Reading, Com- plete, First Reader.....	798	952	1,973
Ward's Rational Method in Reading, Com- plete, Second Reader.....	799	403	1,642
Ward's Rational Method in Reading, Com- plete, Third Reader.....	800	231	788
Ward's Rational Method in Reading, Com- plete, Fourth Reader.....	801	121	286
Ward's Phonetic Cards, Set One.....	802	47	35
Ward's Phonetic Cards, Set Two.....	803	37	34
Ward's Phonetic Cards, Set Three.....	804	18	33
Ward's Manual of Instructions.....	805	188	59
Totals.....	.....	.....	.....
Stewart & Coe's First Days in School.....	777	488	240
Totals.....	.....	.....	.....
Witherbee's Common Sense Copy Books....	132	5 doz.	80 doz.
Totals.....	.....	.....	.....

1904.

No. of Volumes.	Author.	Total Cost of Books by Authors' Names.
17,517	Maxwell	\$6,940 86
165	Kuttner	66 00
11,158	Walsh	3,836 58
612	Meleney & Giffin.....	95 40
140	Rix	88 20
121	Williams & Fisher.....	96 80
100	Caswell & Ryan.....	78 00
169 doz. }	Farley & Gunnison.. ..	87 25
11 pkgs. }	Furey	29 70
99	Phelps & Lewis.....	137 50
275	Ward	3,794 45
11,476	Stewart & Coe.....	152 88
728	Witherbee	49 30
85 doz.		
		\$15,452 92

Ordered, 1904.*		Total, All Boroughs.	Contract Cost per Vol.	Total Cost.	Total Cost of Books by Authors' Names.
Queens.	Richmond.				
.....	<u>99</u>	\$0 30	<u>\$29 70</u>	\$29 70
.....	<u>99</u>			
.....	<u>275</u>	50	<u>\$137 50</u>	137 50
.....	<u>275</u>			
.....	4,592	30	\$1,377 60	
.....	2,925	30	877 50	
19	2,064	38	784 32	
16	1,035	41	424 35	
.....	407	45	183 15	
.....	82	31	25 42	
.....	71	41	29 11	
.....	51	31	15 81	
2	249	31	77 19	3,794 45
.....	<u>11,476</u>			
.....	<u>728</u>	21	<u>\$152 88</u>	152 88
.....	<u>728</u>			
.....	85 doz.	58 doz.	<u>\$49 30</u>	49 30
.....	85 doz.			
					<u>\$15,452 92</u>

REPORT NO. 4.

Sewing in the Elementary Schools—Cost of Supervision and of the Materials Used —An Expensive Adjunct of the School System.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In complinace with your instructions to investigate the teaching of sewing in the elemetary schools of the City from the viewpoint of possible economies, I beg to submit the following report:

Sewing is taught in all grades in the elementary schools of the City, beginning with Class 1A and including Class 8B. In order to make out an eight years' course in this branch it has been necessary to introduce a large amount of technical work that does not belong in an elementary course. This overloading of the course of study has made it necessary to provide a large corps of special teachers, most of whom could be dispensed with if the course were restricted within legitimate bounds and special supervision were confined to teachers who need extra help.

The Consolidated School Law specifies reading, spelling, writing, arithmetic, English grammar and geography as the common branches which must be included in the course of instruction legally required of every child between eight and sixteen years of age. It also provides for a course in physiology and hygiene, including the nature of alcoholic drinks and other narcotics, which must be taught as thoroughly as the other branches in all schools under state control, and specifies that the Board of Education in each city in the State shall provide free instruction in industrial or free-hand drawing in the schools under its charge, unless excused therefrom by the Superintendent of Public Instruction. In addition to these branches the statute authorizes the Board of Education in each city to provide instruction in vocal music, and to establish and maintain departments for manual training for teaching and illustrating the manual or industrial arts.

THE CURRICULUM IN NEW YORK CITY.

Under section 1084 of the Charter the Board of Education of New York City has power, upon the written recommendation of the Board of Superintendents, to adopt and modify courses of study for all schools under its supervision. Besides the six common school branches, physiology and hygiene, and drawing, which are made obligatory under the law, the curriculum for the elementary schools of the City includes physical training, nature study or elementary science, shop-work, sewing, cooking,

ethics, algebra, geometry, civics and an elective course in German, French, Latin or stenography.

COURSE OF STUDY IN SEWING.

The new course of study laid down by the Board of Education, published May 27, 1903, contains a full eight years' course in sewing and construction work, commencing with Class 1A and including Class 8B. Although sewing has just been introduced into the schools of Queens and Richmond, and was not made a part of the regular work in Brooklyn until 1896, it is not an innovation in the Boroughs of Manhattan and The Bronx. For twenty-five years at least sewing has been permitted in certain classes in Manhattan. The manual of the Board of Education, revised and published in 1884, includes instruction in sewing as part of the regular course in the second half of the second year and in all of the third year. It also specifies that such instruction may be given in the female grammar schools.

The work of the first three years, during which the instruction is given to both boys and girls, is called sewing and construction work. In the first year the work consists of simple and double knotting and looping of coarse cable cords and cotton lacers, and applications of the same. In the second year sewing proper is introduced in the form of large stitches on canvas, double chain stitching in cord or raffia (a coarse palm fibre from Madagascar), buttonhole looping and fancy knotting. In this year drills in the use of the needle and thimble are given. In the third year cord and raffia work are continued, simple braiding and weaving are introduced, the sewing of seams and the joining of two pieces of cloth are taken up, and instruction is given on fibres and textiles. Looms are introduced and simple lessons in weaving are given.

FOURTH, FIFTH AND SIXTH YEARS.

Commencing at Grade 4A, the sewing is separated in the course of study from that of constructive work and called simply sewing, and it is noted that in mixed classes, while girls are engaged in sewing, boys receive instruction in constructive work, which is entirely different in its nature from sewing. The course of work for the grades through Grade 6B consists in the preparation of small garments, mending, repairing garments, designing, drafting and sewing, cutting and making small garments, estimating quantity of material in the preparation of garments, drafting to scale and applied designs. During the course in these grades the garments made are not of full size, but are models in miniature, as it is not considered advisable to provide the material necessary for the making of full-sized garments.

SEVENTH AND EIGHTH YEARS.

In Grades 7A to 8B, inclusive, advanced sewing is pursued by girls in schools not provided with kitchens. This consists of drafting and making full-sized garments, the material for which is often provided by the students. In these years instruction is given in the use of bought patterns; also in making designs for decorating garments, matching and joining embroidery and lace, placing whalebones, rolling and whipping

ruffles, making facings, pipings, folds, small tight-fitting lined waists and small gored lined skirts.

SUPERVISION OF THE WORK.

Under sections 1079 and 1085 of the Charter (both of which are new under the revision of 1901), the Board of Education has power to appoint such directors of special branches as it deems necessary, no person being eligible for election as a director of such branch who is not a college or university graduate, a graduate from a course of professional training in the special branch which she is to supervise or teach, and a teacher of that special branch with at least three years' successful experience. The directors of sewing act as advisers to the Board of Superintendents, to the district superintendents, and to the principal, with regard to all matters relating to their special branch, and as instructors to the special teachers under their charge. The Board of Education also has power to appoint special teachers of this branch who shall visit the classes in the schools to which they are assigned, inspect the sewing, give model lessons, and direct the instruction of the regular teachers. At present, two directors and fifty-four special teachers are employed to supervise the sewing work in the various schools throughout the City.

COST OF SUPERVISION.

Manhattan and The Bronx—

1 Director	\$2,500 00
29 Special Teachers, at \$1,200 a year.....	34,800 00
1 Special Teacher	1,100 00
3 Special Teachers, at \$1,000 a year.....	3,000 00
3 Special Teachers, at \$900 a year.....	2,700 00

Brooklyn and Queens—

1 Director	2,500 00
10 Special Teachers, at \$1,200 a year.....	12,000 00
3 Special Teachers, at \$1,100 a year.....	3,300 00
1 Special Teacher	1,000 00
3 Special Teachers, at \$900 a year.....	2,700 00

Richmond—

1 Special Teacher	900 00
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Total.....	<u>\$66,500 00</u>
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TIME GIVEN TO SEWING.

The time allotted to sewing is sixty minutes per week in all classes from 1A to 6B inclusive, and eighty minutes per week in the classes from 7A to 8B inclusive. So much time is required to distribute and collect sewing materials that it is customary to use the full time allotted to this subject per week for one sixty or eighty minute

lesson rather than to divide it into several shorter periods. Teachers say it is quite the usual thing to run over time in the sewing lesson. The following table shows the time allotted to this subject in each year, as compared with that given to the so-called essentials:

TIME SCHEDULE ON THE BASIS OF 1,500 MINUTES PER WEEK.

	Years.							
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.
Sewing	60	60	60	60	60	60	80	80
Penmanship ..	100	125	125	75	75	75	...	...
Mathematics .	120	150	150	150	150	200	200	160
English	450	510	450	375	375	375	360	320

PURPOSE OF THE WORK.

The introduction to the Syllabus for Sewing and Constructive Work says: "The aim of all this work is to strengthen the mind and the hand by exercises entirely within the limits of the child's proper activities and to give him a training which will develop a power to think and to do.

"In the higher grades a knowledge of drafting and garment-making will fit the girl for the practical problems of life and give her ability to solve many domestic problems. The æsthetic, as well as the utilitarian value of sewing should be recognized. The child should combine her skill in stitches, knowledge of design, love for the beautiful, and her active interest in doing, by making something that will show the application of art to needle-work."

COST OF MATERIALS.

In attempting to arrive at an estimate of the cost of supplies used in the work laid down in the course of study, recourse was had to the records of the supply department of the Board of Education. As has been explained in the report of the Investigations Division covering the 1903 record of the purchase of supplies, no statement could be procured of the actual quantities delivered to the schools upon requisitions from principals. Consequently, in this case as in all others, where reference is made to supplies used in connection with the several branches of study, it has been found necessary to use the tabulations prepared by the Examiners of the Finance Department. In arriving at the probable quantities and cost of sewing materials consumed in the schools during the year 1903, your Examiners have compiled figures showing the total quantities of the several kinds of goods ordered from contractors during the year 1903. To these figures have been added the stock on hand on December 31, 1902, and from the total of these two there have been deducted the quantities shown to have been in stock by the Board of Education inventory on December 31,

1903. The figures covering the quantities and cost of sewing materials thus arrived at are here given:

Approximate Quantity and Cost of Materials Used in Connection with the Course of Instruction in Sewing in the Day and Evening Elementary Schools During the Calendar Year 1903. Cost Calculated at 1903 Contract Prices.

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Boards, cutting	366	Each	\$1 50	\$549 00
Bobbins, linen	1,658¾	Doz. pieces	10	165 87
Bones, dress, 8-inch.....	886	Doz.	05	44 30
Buttons, porcelain, small.....	441½	Gross	04¼	18 77
Buttons, porcelain, large.....	502	Gross	07	35 14
Buttons, small, pearl.....	3,137	Doz.	03 1-5	100 38
Buttons, shoe	145	Great gross	38	55 10
Calico, assorted colors, 36 inches wide	10,638¾	Yard	08¼	877 70
Cambric, Lonsdale, 36 inches wide....	3,694¾	Yard	10	369 48
Cards, cream white, plain.....	55,800	1,000	72½	41 56
Cashmere, red, tan and blue, 36 inches wide	1,505¾	Yard	27	406 55
Cotton, white, Nos. 40 to 80, inclusive	3,999 5-12	Doz.	44½	1,784 74
Cotton, black, No. 40.....	326½	Doz.	44½	145 70
Cotton, light olive, No. 40.....	74	Doz.	44½	33 02
Cotton, gray, No. 60.....	291	Doz.	44½	129 86
Cotton, light cardinal, No. 40.....	1,119½	Doz.	44½	499 57
Cotton, blue, No. 40.....	1,174	Doz.	44½	523 89
Cotton, darning, white.....	186 1-6	Doz.	14¾	27 46
Cotton, crochet, No. 80.....	134 11-12	Box	31	41 82
Cotton, unbleached, darning.....	145	Doz.	14¾	21 39
Cotton, assorted colors.....	126	Doz.	44½	56 33
Cushions, emery	96	Gross	2 74	263 04
Damask, bleached, 64 inches wide....	472	Yard	418	197 30
Dress goods, cotton and wool.....	3,688½	Yard	18	663 93
Envelopes, 7½ by 11¼ inches.....	430,400	1,000	5 33	2,294 03
Embroidery edging	1,015	Yard	03¾	38 06
Filosele	902	Doz.	26	1,234 52
Flannel, cotton shaker, 28 inches wide	2,726	Yard	048	130 82
Flannel, cotton and wool, 27 inches wide	2,501	Yard	23	575 23
Flannel, outing, plain and colored....	702¾	Yard	07¼	509 49
Flannel, striped, assorted patterns, 29 inches wide	2,238¾	Yard	074	165 67
Gingham, small blue and white check, 27 inches wide.....	6,308	Yard	0798	503 38
Gingham, small pink and white check, 27 inches wide.....	2,470¼	Yard	0798	197 12
Gingham, blue and white stripe, 27 inches wide	1,822¼	Yard	0798	145 42
Gingham, pink and white stripe, 27 inches wide	1,431½	Yard	0798	114 23
Gingham, plain, blue, pink and green.	22,923	Yard	0798	1,829 26
Hooks and eyes, white, assorted sizes.	244	Doz. cards	10	24 40
Huck, white linen, 18 inches wide....	1,656¾	Yard	11	182 24
Lawn, apron, 40 inches wide.....	6,027	Yard	07	421 89
Looms for weaving, Hooper's Colonial	1,213	Each	30	363 90
Measures, muslin tape.....	1,983	Doz.	19¾	391 64
Muslin, half-bleached, 36 inches wide.	13,672	Yard	0723	988 49
Muslin, white, for working button-holes, 30 inches wide.....	6,494	Yard	07½	487 05
Needles, darners, No. 5.....	1,973	Paper of 25	02	39 46
Needles, coarse darning, 3½ inches long	11,450	1,000	1 68	19 24
Needles, Milward's, Nos. 5 to 10....	3,082,525	1,000	1 07	3,298 30
Needles, Blood's, Nos. 5 to 10.....	40,950	1,000	99	40 54
Needles, James Smith's, No. 21 (worsted needles)	9,113	Paper	03 1-3	303 77
Pins	1,097	Doz. papers	32	351 04
Ribbon, binding, gray	925	Piece	08	74 00
Scissors, 3-inch, blunt.....	383½	Doz.	97	372 00
Scissors, 5-inch, blunt.....	481 5-12	Doz.	95	457 34
Scissors, sharp pointed, 5-inch.....	3,311 5-6	Doz.	1 76	5,828 83

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost
Scissors, for working buttonholes.....	152 7-12	Doz.	\$1 35	\$205 99
Shears	73 5-6	Doz.	2 75	203 04
Sewing designs, elementary, Nos. 1 and 2	1,712	Square yard	15	256 80
Sewing designs, elementary, Nos. 3, 4 and 5	2,144	Square yard	20	428 80
Sewing designs, elementary, No. 3, on linen	169	Square yard	40	67 60
Silesia, gray, for waist lining.....	4,341 2-3	Yard	0799	346 89
Silk, white twist, best quality.....	456 1-3	Doz.	20	91 27
Silk, colored twist, best quality, assorted colors	322 5-6	Doz.	20	64 56
Silk, sewing, best quality, assorted colors	55 7-12	Doz.	64	35 57
Stiletto (bone)	4 1/4	Doz.	09 1/2	40
Stockinette	320 1/2	Yard	43	13 78
Tape, white twilled.....	7,019	Piece	01	70 19
Thimbles, German silver, 4 to 9.....	1,501 19-24	Gross	2 25 1/2	3,386 54
Tracers	574	Each	02 3/4	15 78
Thread, black linen, No. 25.....	96 11-12	Doz.	75	72 68
Worsted, assorted colors.....	837 1/2	Lb.	1 09	912 87
Stamped squares	20	Pkg.	27	5 40
Total.....				\$33,611 42

From these figures it will appear that the sewing materials used during the year 1903 cost approximately \$33,611.42, but as some of the materials used in the elementary schools are also used in the vacation schools no exact calculation can be made as to the cost of supplies used in the elementary schools alone. In preparing the statement showing the amount of purchases during the year 1903 no separation of the supplies for the vacation schools was made, it being customary for the Superintendent in charge of the vacation schools to order from the regular supply list such sewing materials as may be used in these schools.

THE NEW COURSE MORE EXPENSIVE.

The quantity of sewing material used during the year 1903 (\$33,611.42) is considerably less than the amount required by the new course of study, which did not go into effect until September of that year. The annual cost of such material, under the new course is estimated at more than \$50,000 per year. This estimate is based upon data given in an official communication issued to principals in December, 1903, by Mrs. Annie L. Jessup, Director of Sewing and Construction Work in Manhattan, The Bronx and Richmond. This communication contains a list of materials required to equip a class of fifty pupils in each of the eight grades for a year's work. It is the list from which principals order their supplies, and each item is numbered and has its cost given.

MATERIALS REQUIRED FOR A CLASS OF FIFTY CHILDREN.

Total cost for first year.....	\$5 02
Total cost for second year.....	8 64
Total cost for third year.....	8 68
Total cost for fourth year.....	8 05

Total cost for fifth year.....	\$8 00
Total cost for sixth year.....	8 70
Total cost for seventh year.....	10 69
Total cost for eighth year.....	8 75
	<hr/>
Total cost for eight years.....	\$66 53
	<hr/>
Average cost per class per year.....	\$8 32
Average cost per pupil per year.....	16½
	<hr/>

This does not include the cost of the looms in the third grade, and it should be noted that scissors and thimbles last more than one year, and manilla envelopes more than one term.

As there are 513,000 pupils enrolled in the elementary schools all of whom in the first three years take the work in sewing, together with girls in all grades, excepting those in the seventh and eighth years, who choose cooking instead, it would be very conservative to estimate that 300,000 pupils receive instruction in this branch. The cost of sewing material for this number of pupils at 16½ cents per pupil would approximate \$50,000.

TOTAL COST PER YEAR.

Cost of supervision.....	\$66,500 00
Cost of material (1903).....	33,611 42
	<hr/>
Total.....	\$100,111 42
	<hr/>

COURSE OF STUDY TOO EXTENSIVE.

An examination of the new eight years' course in sewing quickly discloses that it is too elaborate for the common schools. The use of the needle is not of sufficient relative importance to merit so much time and attention. The course of study for the elementary schools, adopted by the Board of Education last year, calls for only six years in penmanship, four years in geography, four years in history and seven years in arithmetic, but sewing has attention through the full eight years. Even reading, which is conceded to be the most important subject in the curriculum, is not taught as such after the fifth grade, it being generally admitted that four or five years should be sufficient to teach a child how to read. After that, in the higher grades, he uses the printed word as an instrument for acquiring knowledge in history, geography, literature and science.

PLAIN SEWING ENOUGH.

The school life of the average child is only about five years, and it must be conceded that we cannot teach everything in so short a period, and, even if we could, there are some things which can be learned much better in the home, the trade school or the practical workshops of the world. The purpose of sewing in the elementary

school is to teach the child the use of the needle and not to train seamstresses and dressmakers, and it would seem that four or five years should be time enough to accomplish this result. At most, instruction in sewing should not be continued after the sixth school year.

It will be seen from the analysis which follows that the course of study as outlined naturally divides itself into two parts, the work of the first five years being the training of the hand by instruction in plain sewing, while in the remaining three years the work begins to specialize and assume the form of technical training or industrial apprenticeship. The training of the hand and the use of the needle may be justified, but not apprenticeship for dressmaking. At this point the shop appears and the framers of the course of study, in their zeal for manual training, overestimated the function of the elementary school and failed to appreciate the division of labor between it and a trade school proper, or a technical high school. The elementary schools are not industrial trade schools, and the attempt to make them so overloads the curriculum, overtaxes both teachers and children and encroaches upon the time belonging to the common branches.

ANALYSIS OF THE COURSE OF STUDY.

Plain Sewing—Work of the First Five Years.

First Year—

- Simple and double knotting in cord and raffia.
- Plain and double looping in cord and raffia.
- Chain stitch.

Second year—

- Fancy knotting and tying in cord and raffia.
- Elementary stitches on canvas.
- Buttonhole looping.
- Double chain stitch.

Third year—

- Sewing of seams, basting and running.
- Simple braiding in cord and raffia.
- Joining two pieces of cloth.
- Sewing on buttons and tapes.
- The overhanding stitch.

Fourth year—

- Advanced stitches applied to small garments.
- Mending garments.
- Patching dresses.
- Hemming and gathering stitches.
- Fancy stitches applied to the decoration of small garments.

Fifth year—

- Repairing garments.
- Dress darning and stocking darning.
- Cutting and making small garments.
- Buttonholes and loops; hooks and eyes.
- Applied design.

Dressmaking and Applied Design—Work of the Last Three Years.

Sixth year—

- Drafting and making of clothing.
- Estimating quantity of material.
- Drafting to scale.
- Applied design in trimmings.
- Study of color harmony in textiles.
- Initial marking and napery hemming.

Seventh year—

- Use of bought patterns.
- Drafting and making of full-sized garments.
- Rolling and whipping ruffles.
- Matching and joining lace and embroidery.
- Designs applied for decorating garments.
- Making full-sized undergarments.

Eighth year—

- Drafting and making garments.
- Dress trimmings and finishings.
- Folds, pipings, facings and pockets.
- Buttonholes on dress materials.
- Placing whale-bones.
- Making small, tight-fitting lined waists.
- Making small gored lined skirts.

The popular apprehension in this matter is sound and, while no one will question that sewing is a practical art and has a definite educative value, many properly condemn the policy of teaching dressmaking in the elementary schools. "To force the drafting and making of full-sized garments, the use of patterns and applied design, upon classes of girls in the seventh and eighth grades is nothing less than to crowd one branch of technical training upon a whole class of pupils when but a small fraction of them really need it or will, in all probability, ever use it. The elementary school is not the place to train specialists in any direction.

SUPERVISION TOO EXPENSIVE.

Whenever a new subject which the ordinary teacher is not competent to handle is introduced into the course of study, it creates the need for a special teacher to give instruction in this branch. The curriculum of the public school is not an entirely arbitrary creation. It is rather a natural growth which assumes greater complexity from time to time in response to the changing conditions of national life. Originally it embraced reading, writing and arithmetic, English grammar being added late in the eighteenth century. The enormous territorial expansion and political development following the American Revolution compelled the formulation of political geography and American history and forced them into the curriculum of the schools. These subjects were "fads" in their day, calling for special teachers and only after a struggle, which lasted more than half a century, did they win position among the so-called essentials and take their place as regular branches which the teachers had, in the mean time, become competent to teach.

The wonderful development of natural science and industrial art during the last fifty years has been the means of putting nature study and manual training into the schools and is largely responsible for the perplexing problem of special teachers, which still continues to be a source of more or less agitation in most American cities. Special teachers are expensive. They are also unpopular, both among the regular teaching corps and the taxpaying public, but they are a necessity accompanying the introduction of any new line of work. They should, however, be dispensed with as soon as the regular teachers can prepare themselves to handle the new subject.

NUMBER OF SPECIAL TEACHERS COULD BE REDUCED.

If the instruction in dressmaking and applied design, recently added to the course of study, were moved forward into the Girls' Technical High School and the Manual Training School, where such work naturally belongs, and the work in the elementary schools confined to plain sewing, the problem of supervision would be greatly simplified. Plain sewing is not an occult art, neither is it a new one. Inasmuch as the teachers of girls' classes are women, most of whom are already more or less skilled in this art, it would seem that the majority of this highly competent corps might be trusted to take charge of the instruction in sewing under the immediate supervision of the principals of the various schools and the general supervision of the able directors, who have the general charge of the sewing work. This does not mean that all special teachers of sewing could be dispensed with, as some are needed to help the weak teachers and the new teachers, but it does mean that their number might be greatly reduced.

TOO MUCH SUPERVISION.

There is a strong feeling among both principals and teachers that there is too much supervision under the present system. As the principal of a large primary

department said, when talking about the matter: "We are supervised to death. My poor teachers are becoming nervous wrecks as the result of too much supervision. After all is said and done, the regular teachers do the actual work, and in most instances they are well qualified to obtain excellent results without a supervisor looming up in all places and at all times." This seems rather severe, but it is a fair sample of the chronic irritation which exists because of the natural antagonism between regular teachers and special teachers. Another principal, of long and successful experience, when asked about the sewing, said: "I would retain the work but do away with the special teachers. They are an unwelcome interruption and an unnecessary expense. I believe in plain sewing in the primary schools, but the frills and furbelows which have been added to the course in order to make it cover eight years are ridiculous."

LARGE BOYS MIGHT BE SPARED.

Comment has been made that large boys are compelled to take lessons in sewing, and this has helped to bring the work into disrepute and even ridicule. It is evidently not the intention of the Board of Education that boys over nine or ten years of age should receive instruction in the use of the needle, but in third-year classes, in sections of the City having a large foreign population, where big boys are graded low because of their inability to use the English language, it frequently happens that boys much older than this spend time in doing such work. For instance, in one 3A class visited there were 41 pupils, over 51 per cent. of whom were Italians and 11 of whom were born across the water. Eight of these boys were in their thirteenth year, fourteen of them were in their twelfth year, eleven of them in their eleventh year, while one boy was nearly fifteen years old. Notwithstanding these facts, all of the boys were diligently plying their needles basting two pieces of cloth together. In an adjoining room, containing a 3B class, twelve and thirteen year old boys were found sewing white muslin sails. For many reasons it would seem that boys should not be obliged to learn to sew, especially boys of twelve and thirteen years of age.

CONCLUSION.

The facts ascertained lead to the conclusion that instruction in sewing is rendered unduly expensive by a course of study which is beyond the scope of the elementary schools. If instruction in dressmaking and applied design were eliminated from these schools, and the work confined to plain sewing, the majority of the class teachers could do the work without the assistance of special teachers. This would enable the Board of Education to dispense with the services of the larger part of the corps of special instructors in this branch. It would also reduce considerably the expenditures for sewing supplies.

Respectfully,

(Signed)

(Mrs.) MATHILDE COFFIN FORD.

REPORT No. 5.

Cooking in the Elementary Schools—An Experiment Which Has Accomplished Little in Results—Its Value In Elementary Education Still Doubtful—Should be Administered With Rigid Economy.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions to investigate the teaching of cooking in the public schools of the City, from the view-point of possible economies, I beg to submit the following report:

Among the many new departures in education during recent years is the attempt to make domestic science, which includes cooking, sewing, the care of a house, laundry work, elementary nursing and home sanitation a branch of popular instruction. All these subjects are now taught in the City schools, the work having been introduced sixteen years ago under the name of manual training, but the results so far are not very satisfactory, as the instruction fails to meet the needs of the great majority of the pupils. Practical methods of teaching cooking in elementary schools have not yet been worked out.

ORIGINATED IN ENGLAND.

The demand for popular instruction in the art of cooking first took definite shape in England in 1873-'74 in connection with a series of scientific lectures on food delivered at the International Exhibition in London. So great was the public interest in this subject that Parliament immediately made an appropriation to establish the National School of Cookery at South Kensington. The new idea spread rapidly and as early as 1877 instruction in cooking became a part of the course in the London public schools.

The New York Cooking School (established in 1874) is generally recognized as the starting point of the new movement in America. Since that time instruction in cooking has been widely introduced into public and private schools all over the United States, domestic science or household economy being now a part of the regular course in the elementary or secondary departments of the public schools in about fifty American cities and towns and in nearly as many private educational institutions. It has also been introduced into a number of colleges, agricultural colleges, normal schools and universities, in some instances under special appropriations from the National Government.

IN NEW YORK CITY SCHOOLS.

The Board of Education in New York City yielded to the general tendency of the time. In 1887 a committee was appointed to consider the introduction of manual training into the schools. After some months of investigation the committee reported in favor of cooking and several other forms of manual training. The Board passed a resolution to the effect that instruction in cooking should be given to girls in certain of the higher classes, and preparations were at once begun for the new work. Kitchens were fitted up, a course of study was outlined, two special teachers were appointed, and the first cooking classes began actual work in 1888.

The work has grown steadily until now kitchens are provided for the demonstration of domestic science in sixty-one elementary schools in various parts of the City, and authority has already been given for the installation of cooking plants in nine other schools. Cooking is also taught in twenty-two evening schools. It is a part of the course in the Girls' Technical High School and the Training School in Manhattan, and in the Manual Training School of Brooklyn. Exhibit "A," given herewith, shows a list of schools having kitchens.

COURSE OF STUDY.

Cooking is taught to girls in the seventh and eighth school years, the course of study being so arranged that during these two years a girl has her choice between instruction in this branch and instruction in sewing. Inasmuch as the course in cooking is little known, I quote in full the syllabuses which detail the course of study in the several classes.

GRADE 7A.

"Syllabus.

"Potatoes—Baked, boiled, riced, mashed, creamed potatoes; fuel value of potato; digestion of starch and value of starchy foods; economy in paring and cooking potatoes.

"Cereals—Mush from various grains served hot and moulded; cereals compared with potatoes.

"Fruits—Stewed prunes, stewed and baked apples, baked bananas, and other fruits, served with cereals.

"Cream Soups—Tomato, asparagus, celery, potato, corn, and pea soups.

"Flour Pastes—Spaghetti with tomato sauce; baked macaroni with cheese.

"Eggs and Milk—Omelets; custard; cottage cheese; rennet custard; food value of eggs and milk; digestion of albumin; effects of heat on albumin; butter making; value of cheese.

"Quick Breads—Biscuits, muffins, griddle cakes, as distinguished from yeast breads, which require a longer time for cooking; uses of soda, acids, alkalies, baking powders; batters and doughs; digestion of quick breads.

"Housekeeping—Making and care of kitchen fire; managing a gas range; care of the sink, waste pipe and trap, garbage pail, refrigerator, kitchen floor, woodwork and oilcloth; dishwashing.

"Laundry Work—Washing of dish towels, dish-cloths, sink-cloths, and dust-cloths."

GRADE 7B.

"*Syllabus.*"

"Bread—White bread, whole wheat bread, bread rolls; food value of wheat flour; fermentation.

"Eggs—Soft-cooked eggs; eggs dropped on toast; poached eggs.

"Meats—Broiling; roasting, boiling meats; soup-stock, and soups; principles of carving.

"Preparation of tissue-building foods, and of acid and mineral supplying foods.

"Tea, Coffee and Cocoa—Comparative value; effects; adulterations.

"Jellies, puddings, custards, apple tapioca, corn starch.

"Vegetables in season.

"Housekeeping—Necessary furnishings of the dining-room; care of silver and glassware.

"Laundry Work—Review of first year's work; washing and ironing napkins."

GRADE 8A.

"*Syllabus.*"

"Meats—Stewing and braising; cooking meats unused after first preparation; digestibility of fresh-cooked and warmed-over meats; smoked and salted meats, and fish. Poultry—Roasting, broiling, baking and frying poultry.

"Fish and Shell Fish—Baking, boiling, broiling fish; fish sauces; food value and digestibility. Oysters—Raw, stewed and scalloped.

"Salads—Fruit and vegetable salads; salad dressings.

"Canning and preserving of fruits and vegetables in season; jelly-making. Sterilization, bacteria, fermentation, decay.

"Condiments.

"Simple Cakes—Molasses, standard, and sponge cakes. Ice creams and water ices.

"Housekeeping—Table-setting; decorations; serving; manners and personal appearance.

"Laundry Work—Review, and laundering of aprons; caps; economical use of starch, soap and blueing.

"Nursing—Fittings and care of sick-room. Cooking for infants and invalids; gruels; egg preparations, egg gruel, shirred egg; milk preparations, albuminized milk, peptonized milk, koumiss; meat preparations, beef tea, beef juice, raw beef sandwiches, broiled chop; clam broth; jelly; lemon whey. The invalid's tray."

GRADE 8B.

"Syllabus.

"Planning meals—Menus; planning suitable diet for children; school luncheons. Mastication and proper digestion; digestibility of starch, sugars, proteids, and potatoes.

"Cereals—Cereals with fruits, coffee, quick breads, and eggs.

"Soup—Fish and meat soups, and gravies. Vegetables; desserts.

"Suitable dishes for breakfasts, dinners and luncheons.

"Housekeeping—Marketing; study of different cuts of meat; prices compared with nutritive value. Selection and care of vegetables and fruits. Economy in buying milk, butter and eggs. Home sanitation; modern plumbing and its care; use of disinfectants. The bedroom, ventilation and sunlight, making of bed, airing of bed and bedding. In schools where cots have not been furnished, doll's beds may be used. Sitting-room or home-room.

"Laundry Work—Washing of fabrics of different color and texture. Removal of ink, iron, fruit and grease stains.

"Nursing—Dietaries, baths."

SUPERVISION OF THE WORK.

The teaching of cooking is under the general charge of the Director of Cooking, who instructs the so-called special teachers, visits the classes and inspects their work, and acts as adviser to the Board of Superintendents, the district superintendents and principals on all questions relating to this subject. All the actual work of teaching children is done by thirty-two so-called special teachers, who visit the schools to which they are assigned and give the instruction. The cooking teachers are not special teachers in the ordinary use of the word. They do not instruct class teachers and supervise their work, as do special teachers of sewing, music and drawing. On the contrary, cooking teachers do all the teaching, the regular class teachers being otherwise employed while the cooking lesson is given. The following is a list of the cooking teachers in Manhattan, The Bronx, Brooklyn and Queens, as given in the Civil List for 1904:

Teachers of Cooking.

Name.	Position.	Appointed.	Salary.
Mary E. Williams.....	Director.....	Oct. 7, 1896	\$2,500 00
Ella Baylos.....	Teacher.....	Oct. 20, 1897	1,200 00
Louise C. Mariotte.....	Teacher.....	Oct. 20, 1897	1,200 00
Ida McM. Austin.....	Teacher.....	Oct. 20, 1897	1,200 00
Harriet Pond.....	Teacher.....	Oct. 20, 1897	1,200 00
Emma H. Crane.....	Teacher.....	Oct. 20, 1897	1,200 00
Mary W. Wilson.....	Teacher.....	Oct. 20, 1897	1,200 00
Jane Butterfield.....	Teacher.....	Apr. 6, 1898	1,200 00
Dorothy E. Millspaueh.....	Teacher.....	Apr. 6, 1898	1,200 00
Isabell M. Bole.....	Teacher.....	Apr. 21, 1898	1,200 00
Minnie Ikelheimer.....	Teacher.....	Oct. 20, 1897	1,200 00
Josephine Earle.....	Teacher.....	Feb. 1, 1899	1,200 00
Mabel Stone.....	Teacher.....	Feb. 20, 1899	1,200 00
Florence Willard.....	Teacher.....	Feb. 20, 1899	1,200 00
Anna M. Lamb.....	Teacher.....	Feb. 20, 1899	1,200 00
Jesuina B. Zappone.....	Teacher.....	Feb. 20, 1899	1,200 00
Agnes Daley.....	Teacher.....	Feb. 1, 1900	1,200 00
Eleanor Kalbfleisch.....	Teacher.....	May 16, 1900	1,200 00
Nellie Dean.....	Teacher.....	May 24, 1900	1,200 00
Mary V. McNulty.....	Teacher.....	Apr. 22, 1901	1,100 00
Ada Roe.....	Teacher.....	June 3, 1901	1,100 00
Fanny D. Perkins.....	Teacher.....	May 8, 1901	1,100 00
Sophie Cohen.....	Teacher.....	Oct. 7, 1901	1,000 00
Grace Adgate.....	Teacher.....	Nov. 11, 1901	1,000 00
Nannette Nevins.....	Teacher.....	Jan. 6, 1902	1,200 00
Clara L. Low.....	Teacher.....	Apr. 1, 1902	1,000 00
Clara M. Wasweyler.....	Teacher.....	Apr. 15, 1902	1,000 00
Sarah Hyams.....	Teacher.....	Mar. 24, 1902	1,000 00
Mabel L. Rose.....	Teacher.....	Apr. 21, 1902	1,000 00
Eva G. Bedell.....	Teacher.....	Sept. 14, 1903	900 00
Charlotte Dennis.....	Teacher.....	Sept. 14, 1903	900 00
Jessie T. Dorman.....	Teacher.....	Sept. 15, 1903	900 00
Mary T. Dowd.....	Teacher.....	Nov. 2, 1903	900 00
Total amount for Teachers.....			\$38,200 00

Under the by-laws of the Board of Education, to be eligible for license as a special teacher of cooking, the applicant must have one of the following qualifications:

"(a) Graduation from a satisfactory high school or institution of equal or higher rank, or an equivalent academic training, or the passing of an academic examination; and the completion of a satisfactory course of professional training of at least two years in cooking.

"(b) Graduation from a college course recognized by the Regents of the University of the State of New York, which includes satisfactory courses in the principles of education and in cooking.

"(c) Graduation from a satisfactory high school or institution of equal or higher rank, or an equivalent academic training, or the passing of an academic examination; and the completion of a satisfactory course of professional training of at least one year, followed by two years' successful experience in teaching cooking."

TIME GIVEN TO COOKING.

Prior to January 1, 1897, three hours per week were devoted to the instruction in cooking. On January 18, 1899, on the recommendation of the Board of Superintendents, the time was reduced to one and one-half hours per week. In the time schedule on the basis of 1,500 minutes per week, published in the course of study adopted by the Board of Education, in June, 1903, the time allotted to cooking is eighty minutes per week, although my understanding is that, in the practical working of the program, it is customary to allow one hour and a half to the lesson, which is given weekly. The following table shows the amount of time given to cooking, as compared with that given to the common branches:

Time Schedule on the Basis of 1,500 Minutes Per Week.

	Cooking.	English.	Mathematics.	History.	Geography.
Seventh year.....	80	360	200	120	80
Eighth year.....	80	320	160	120	..

A COOKING PLANT.

A cooking plant consists of a kitchen fitted up with a gas range, a kitchen table, a large marble-top table, a sink with hot and cold water, cupboards, and chairs with arm-rests for the pupils. The floor is covered with linoleum. A complete kitchen equipment is supplied, consisting of a table-cloth, napkins, roller towels, dish towels, plates, cups, saucers, platters and other dishes; knives, forks and spoons for table use and for cooking purposes; pots, pans, potato mashers, rolling pins, and all the

numerous cooking utensils that are required to fit up a well furnished kitchen. The list given herewith shows a full kitchen equipment :

A Kitchen Equipment.

Bath brick.	Teapots.
Whisk broom.	Double agate boilers.
Brushes—vegetable, stove and polishing.	Butter crock.
Oil cloth.	Carving set, knife, fork, steel.
Cheese cloth.	Cleaver, 7-inch.
Table cloth.	Agate soap dish.
Corkscrew.	Forks, table, kitchen.
Clotheshorse.	Knives, table, bread, vegetable.
Napkins, fringed.	Larding needles.
Stove polish.	Can openers.
Roller towel rack.	Pans, dripping, frying.
Thermometers.	Saucepans, agate covered.
Bowls, white and yellow.	Scales, 12 pounds.
Custard cups.	Teaspoons.
Cups and saucers.	Tablespoons.
Dishes, pressed glass and vegetable.	Lemon squeezer.
Mason's jars, 1 quart and 1 pint.	Bins, sugar, flour.
Jugs, 1 pint.	Boxes, bread, pepper, spice.
Nappies, 7 inch and 8 inch.	Apple corers.
Plates, bread and butter, dinner, soup.	Pans, bread, cake, muffins.
tea.	Coffee pot.
Biscuit cutters.	Soup strainers.
Agate colanders.	Skimmers.
Egg whisk.	Sieves.
Flour dredger.	Scoops.
Funnels.	Steamer.
Graters.	Trays.
Oyster broilers.	Jelly cake tins.
Potato mashers.	Dishcloth, wire.
Graduated measures.	Bread boards.
Melon moulds.	Chopping bowls.
Rolling pins.	Dish mops.
Soap shakers.	Ice picks.
Platters, medium, large.	

Cost of Kitchen Furnishings.

The estimated cost of fitting up a new kitchen, including all necessary kitchen supplies for a year, is \$550. The sum expended in 1903 to furnish new kitchens and

replenish old ones was \$4,416.86. The figures covering the quantities and cost of kitchen furnishings for that year are here given:

Approximate Quantity and Cost of Materials and Utensils Used in Connection with the Course of Instruction in Cooking in the Day and Evening Schools during the Calendar Year 1903.

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Bath brick	190	Each	.028	\$5 32
Bins, sugar	95	Each	.13	12 35
Bins, flour	46	Each	.49	22 54
Boards, bread	73	Each	.23	16 79
Boards, wash	41	Each	.34	13 94
Boilers, double, agate, one quart.....	526	Each	.43	226 18
Boilers, double, agate, two quart.....	78	Each	.54	42 12
Boilers, double, agate, four quart.....	68	Each	.83	56 44
Bowls, chopping	98	Each	.08	7 84
Bowls, one quart, white.....	791	Each	.12	94 92
Bowls, mixing	253	Each	.29	73 37
Boxes, bread	33	Each	.48	15 84
Boxes, pepper	544	Each	.02	10 88
Boxes, spice	46	Each	.53	24 38
Broilers, oyster	34	Each	.14	4 76
Brushes, vegetable	240	Each	.04	9 60
Brushes, stove, blacking	32	Each	.049	1 57
Brushes, stove, polishing	19	Each	.25	4 75
Carving sets (knife, fork and steel).....	20	Set	1.48	29 60
Cleavers, 7-inch	21	Each	.59	12 39
Cloth, cheese, 36 inches wide.....	3,871	Yard	.03	116 13
Cloth, table, 64 inches wide.....	211 7-12	Yard	.59½	125 89
Cloth, wire, dish	86	Each	.10	8 60
Colanders, agate	148	Each	.24	35 52
Corers, apple	256	Each	.05	12 80
Corkscrews	52	Each	.059	3 07
Crocks, butter	290	Each	.21	60 90
Cups, custard	804	Each	.03	24 12
Cups and saucers	1,111	Pair	.13 1-3	148 13
Cutters, biscuit	316	Each	.05	15 80
Dish, pressed glass	72	Each	.25	18 00
Dish, vegetable	24	Each	.20	4 80

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Dish, soap, agate, hanging.....	216	Each	.10	\$ 21 60
Dredgers, flour, etc.....	201	Each	.04	8 04
Egg whisks	516	Each	.02½	12 90
Egg beaters	243	Each	.10	24 30
Forks, kitchen	689	Each	.05	34 45
Forks, table, plated	37½	Doz.	2.70	101 25
Freezer, ice cream	76	Each	1.69	128 44
Funnels	200	Each	.04½	9 00
Graters	235	Each	.07	16 45
Horse, clothes, 4 feet.....	172	Each	.72	123 84
Irons, smoothing, small	74	Each	.14	10 36
Irons, smoothing, large	62	Each	.22	13 64
Jars, 1-pint	1,772	Each	.08	141 76
Jars, 1-quart	813	Each	.09	73 17
Jugs, 1-pint	75	Each	.12	9 00
Kettles, tea, agate	96	Each	.45	43 20
Knives, bread	47	Each	.229	10 76
Knives, chopping, double.....	84	Each	.159	13 36
Knives, palette	398	Each	.21	83 58
Knives, vegetable, French	486	Each	.149	72 41
Knives, table, plated	34 7-12	Doz.	2.70	93 38
Knives, table, iron	445	Each	.04	17 80
Mashers, potato, wire	292	Each	.06	17 52
Mashers, potato, wooden	2	Each	.04	08
Measures, ½-pint (graduated)	387	Each	.08	30 96
Measures, 1-quart (graduated)	179	Each	.11	19 69
Measures, 1-gallon	8	Each	.13⅞	1 11
Mops, dish, small	1,118	Each	.05	55 90
Moulds, melon	42	Each	.37	15 54
Napkins, hemmed, 20 inches square	98½	Doz.	1.33⅞	131 25
Napkins, fringed, 16x16 (including fringe).....	155	Doz.	.54	83 70
Nappies	116	Each	.15	17 40
Nappies, scalloped	77	Each	.15	11 55
Needles, larding (set of).....	17	Set	.49	8 33
Openers, can	49	Each	.089	4 36
Pan, frying, No. 1.....	519	Each	.11	57 09
Pan, frying, No. 3.....	77	Each	.12½	9 62
Pan, bread	173	Each	.12	20 76

Description of Goods.	Quantity. ¹	Unit.	Unit Price.	Total Cost.
Pan, cake	5	Each	.29	\$1 45
Pan, dish, tin	206	Each	.20	41 20
Pan, muffin, 8 holes.....	124	Each	.14	17 36
Pan, roll, 8 holes, Russia.....	63	Each	.44	27 72
Pan, roll, French	76	Each	.48	36 48
Picks, ice	48	Each	.20	9 60
Plates, agate	384	Each	.12	46 08
Plates, bread and butter.....	1,109	Each	.05	55 45
Plates, dinner	1,151	Each	.06	69 06
Plates, soup	641	Each	.06	38 46
Plates, tea	728	Each	.05	36 40
Platters, medium	129	Each	.25	32 25
Platters, large	37	Each	.39	14 43
Pots, tea	57	Each	.21	11 97
Pots, coffee, 2-quart	53	Each	.75	39 75
Press, vegetable	62	Each	.22	13 64
Rack, towel	14	Each	.10	1 40
Saucepan, lipped, agate, covered, No. 10.....	411	Each	.17	69 87
Saucepan, lipped, agate, covered, No. 14.....	248	Each	.19	47 12
Saucepan, lipped, agate, covered, No. 20.....	103	Each	.29	29 87
Scales, large, with scoop	29	Each	1.59	46 11
Shakers, soap	137	Each	.05	6 85
Skimmers	98	Each	.06	5 88
Sieves, flour	221	Each	.09	19 89
Spoons, tea, plated	89½	Doz.	1.20	107 40
Spoons, table, plated	42½	Doz.	2.40	102 00
Spoons, table, iron.....	465	Each	.02½	11 62
Spoons, wooden	330	Each	.02½	8 25
Squeezers, lemon, glass.....	109	Each	.06	6 54
Steamers	23	Each	1.54	35 42
Strainers, soup, wire, small.....	358	Each	.06½	23 27
Strainers, soup, wire, medium.....	178	Each	.10	17 80
Tins, jelly cake	239	Each	.05	11 95
Towels, glass, 18x36 inches, hemmed.....	180	Doz.	1.32	237 60
Towels, dish, 18x36 inches, hemmed.....	189 1-12	Doz.	1.32	249 59
Trays, Japanned, oval, medium.....	138	Each	.11	15 18
Tureens, soup	54	Each	1.39	75 06
Total.....				\$4,416 86

KITCHEN FOOD SUPPLIES.

Under authority given by the Board of Education, the teachers of cooking purchase from day to day such food supplies as are needed to demonstrate the lessons. The bills for such supplies are approved by the director of cookery and by the principal of the school for which they are purchased, after which they are rendered monthly to the Board of Education. From such bills rendered by teachers the following list is made up to illustrate the variety of articles used in the cooking lessons:

Food Articles Bought for School Kitchens.

Apples.	Bread.	Celery.
Almonds.	Baking powder.	Cocoa.
Asparagus.	Bacon.	Cream.
Butter.	Barley.	Cherries.
Beef.	Bananas.	Capers.
Beets.	Carrots.	Cornmeal.
Coffee.	Junket tablets.	Pettijohn's.
Cornstarch.	Lettuce.	Prunes.
Chocolate.	Lemons.	Pineapple.
Crackers.	Leg of lamb.	Quaker oats.
Cheese.	Liver.	Rice.
Corned beef.	Lima beans.	Rhubarb.
Cabbage.	Lamb chops.	Sugar.
Cream of tartar.	Milk.	Salad.
Chicken.	Mutton.	Smoked beef.
Codfish.	Macaroni.	Spaghetti.
Currants.	Molasses.	Salmon.
Clams.	Onions.	Strawberries.
Eggs.	Oil.	Steak.
Figs.	Oranges.	Sardines.
Fish.	Oysters.	Tea.
Flour.	Pickles.	Tomatoes.
Farina.	Potatoes.	Vinegar.
Gelatine.	Parsley.	Vanilla.
Ginger.	Peas.	Vermicelli.
Iodine.	Powdered sugar.	Yeast.
Jam.	Pepper.	

EXPENDITURES FOR FOOD SUPPLIES.

During the first ten months of 1903 bills for kitchen food supplies aggregating \$3,397.80 were rendered by cooking teachers in Manhattan and paid out of the Special School Fund. The amounts expended by cooking teachers during that period

varied from \$8.25 up to \$142.88, according to the number of lessons given, and probably according to the ability of the teacher to "shop" economically at the corner grocery. The amount expended monthly ranged from \$30.74 down to \$0.95. The amount now being expended annually for food supplies for use in all the City schools is approximately \$5,000.

Total Cost of Cooking in 1903.

Amount paid to teachers.....	\$38,200 00
Amount paid for kitchen furnishings	4,416 86
Amount paid for food supplies (approximately).....	5,000 00
Total	<u>\$47,616 86</u>

SUPERFICIAL AND IMPRACTICAL.

Radically new departures in education must necessarily mature slowly. When a new subject is introduced into the curriculum of the schools, effective methods of teaching it can only be developed through a long and tedious process of experiment. The supply of teachers who are skilled in the new line is always limited and it is therefore difficult to provide the schools with competent teachers of the new subject. For this reason the quality of the instruction as a whole in the so-called special studies which are the lines of work more recently introduced into the schools falls below the standard usually maintained in the regular branches of instruction. This seems to be especially true of the cooking lessons, as the opinion prevails among principals and teachers that the instruction in this subject is superficial and does not call for sufficient mental effort on the part of the pupil. My own observation in the schools goes to confirm this opinion.

The methods of instruction in cooking are very crude. The theory is that every branch in the curriculum should be utilized in the cooking lesson, but in practice this is rarely done. The Director of Cooking says: "Domestic science is vitally related to physics, chemistry, biology, physiology and hygiene." This is undoubtedly true, but the average teacher has not the power to develop these relations in her teaching. Even such simple facts in geography as one would naturally expect to see brought out incidentally in connection with the various food products used in the cooking lessons are usually ignored, not to speak of the lost opportunities for number and language training.

Principals of schools in the more populous parts of the City, where pupils come from poorer homes, complain that the instruction in cooking is not practical. They say the food prepared is not such as these children use in their homes and that the lessons given do not teach that rigid economy which such children need to learn. Instead of teaching a girl how to make an inferior piece of meat palatable, she is told that only "such and such fine cuts are fit to buy." In one class where the girls had been

taught "always to cook with gas as it was cleaner and not so much work," inquiry revealed that only two girls in the entire class came from homes provided with gas ranges.

There is too much fancy cooking in both day schools and evening schools. Salads, desserts and even confectionery receive a large share of attention. The fact that girls spend school time in making fudge and molasses candy has been especially condemned. All this has brought suspicion on the cooking lesson and raised a doubt as to the practical value of the instruction.

ONLY A DUMMY KITCHEN.

The weakest point in the teaching of cooking in the schools is the fact that the work is not done under the natural stimulus of a direct demand for food. In the real household a meal is prepared to be eaten, but in the school food is often cooked only to be thrown away. Naturally, the work falls short of the highest results because its strongest incentive is lacking. The school kitchen, at best, is only a dummy kitchen after all. It carries within itself the drawback of unreality.

Another striking defect in the attempt to teach cookery is the fact that a girl gets very little actual experience in the art of cooking. As there is only one range in a school kitchen a girl does not have an opportunity to do actual work in cooking more than three or four times during the year, most of her time being spent in mere looking on. As a prominent principal said: "The instruction in cooking is very meagre. We make a pretense at teaching cooking, but do not carry it out practically. Most of the girls merely look on while someone else does the work. Only four girls are occupied in cooking during a lesson, the others being only spectators."

CONCLUSIONS.

It would appear that the experiment of teaching cooking in the elementary schools of the City has not yet produced results which are in any sense adequate and satisfactory. The instruction in this branch has not been adapted to the needs of the common people, whose children make up the great majority in these schools. The Department of Education is spending annually about \$50,000 on cooking teachers and cooking supplies, and it would seem reasonable that this amount should not be increased until the work can be put upon a practical basis. In fact, \$50,000 a year is too much to spend on such instruction before it passes the experimental stage.

As a feature of popular education the place of instruction in cooking is still problematical. Whether such instruction belongs in the elementary day schools, the elementary evening schools, the regular high schools, or in special high schools like the Brooklyn Manual Training School has not yet been decided by the educational authorities. In London, where instruction in cooking was first introduced into ele-

mentary day schools, the opinion is gaining ground that the experiment has not produced results which justify its being continued, and there is talk of confining such instruction to the evening schools.

Respectfully,

(Signed) (Mrs.) MATHILDE COFFIN FORD.

EXHIBIT "A."

PUBLIC SCHOOLS HAVING KITCHENS.

MANHATTAN BOROUGH.

Training School.

Model School, No. 241 East Hundred and Nineteenth street.

High Schools.

Girls' Technical, No. 34½ East Twelfth street.

Annex, No. 146 Grand street.

Annex, Eighty-second street and West End avenue (Public School 9).

Annex, No. 244 East Fifty-second street.

Elementary Schools.

Public School No. 1, Henry, Catharine and Oliver streets.

Public School No. 6, Madison avenue and Eighty-fifth street.

Public School No. 9, Eighty-second street and West End avenue.

Public School No. 13, East Houston and Essex streets.

Public School No. 14, No. 225 East Twenty-seventh street.

Public School No. 17, No. 335 West Forty-seventh street.

Public School No. 18, No. 121 East Fifty-first street.

Public School No. 19, No. 344 East Fourteenth street.

Public School No. 23, Mulberry and Bayard streets.

Public School No. 25, No. 326 Fifth street.

Public School No. 28, No. 257 West Fortieth street.

Public School No. 37, No. 113 East Eighty-seventh street.

Public School No. 41, No. 36 Greenwich avenue.

Public School No. 42, Hester, Orchard and Ludlow streets.

Public School No. 43, One Hundred and Twenty-ninth street and Amsterdam avenue.

Public School No. 44, Hubert and Collister streets.

Public School No. 46, St. Nicholas avenue and One Hundred and Fifty-sixth street.

Public School No. 49, No. 237 East Thirty-seventh street.

Public School No. 50, No. 211 East Twentieth street.

Public School No. 54, One Hundred and Fourth street and Amsterdam avenue.

Public School No. 59, No. 228 East Fifty-seventh street.

Public School No. 71, No. 188 Seventh street.

- Public School No. 72, Lexington avenue, One Hundred and Fifth and One Hundred and Sixth streets.
- Public School No. 73, No. 209 East Forty-sixth street.
- Public School No. 76, Lexington avenue and Sixty-eighth street.
- Public School No. 77, First avenue, Eighty-fifth and Eighty-sixth streets.
- Public School No. 78, Pleasant avenue and One Hundred and Nineteenth street.
- Public School No. 80, No. 225 West Forty-first street.
- Public School No. 84, No. 430 West Fiftieth street.
- Public School No. 87, Seventy-seventh street and Amsterdam avenue.
- Public School No. 93, Amsterdam avenue and Ninety-third street.
- Public School No. 96, Avenue A, Eighty-first and Eighty-second streets.
- Public School No. 103, One Hundred and Nineteenth street and Madison avenue.
- Public School No. 106, No. 222 Mott street.
- Public School No. 119, One Hundred and Thirty-third and One Hundred and Thirty-fourth streets, near Eighth avenue.
- Public School No. 147, Henry and Gouverneur streets.
- Public School No. 157, St. Nicholas avenue, One Hundred and Twenty-seventh and One Hundred and Twenty-eighth streets.
- Public School No. 159, No. 241 East One Hundred and Nineteenth street.
- Public School No. 168, One Hundred and Fourth and One Hundred and Fifth streets, between First and Second avenues.
- Public School No. 170, One Hundred and Eleventh street, east of Lenox avenue.
- Public School No. 177, Market and Monroe streets.
- Public School No. 186, One Hundred and Forty-fifth and One Hundred and Forty-sixth streets, near Amsterdam avenue.
- Public School No. 188, Manhattan, East Houston, Lewis and East Third streets.

BOROUGH OF THE BRONX.

Elementary Schools.

- Public School No. 4, Fulton avenue and One Hundred and Seventy-third street.
- Public School No. 9, No. 735 East One Hundred and Thirty-eighth street.
- Public School No. 20, Fox, Simpson and One Hundred and Sixty-seventh streets.
- Public School No. 27, St. Ann's avenue, One Hundred and Forty-seventh and One Hundred and Forty-eighth streets.
- Public School No. 28, Tremont and Anthony avenues.
- Public School No. 32, One Hundred and Eighty-third street, Beaumont and Cambreling avenues.
- Public School No. 3, Jerome and Walton avenues, north of One Hundred and Eighty-fourth street.
- Public School No. 35, One Hundred and Sixty-third street, between Grant and Morris avenues.
- Public School No. 36, Avenue C, between Eighth and Ninth streets, Unionport.

BOROUGH OF BROOKLYN.

High School.

Manual Training, Court and Livingston streets.

Elementary Schools.

- Public School No. 2, Forty-seventh street, near Third avenue.
- Public School No. 15, Third avenue, State and Schermerhorn streets.
- Public School No. 18, Maujer street, near Leonard street.
- Public School No. 26, Gates avenue, near Ralph avenue.
- Public School No. 82, Fourth avenue and Thirty-sixth street.
- Public School No. 84, Glenmore and Stone avenues and Watkins street.
- Public School No. 141, Leonard, McKibbin and Boerum streets.

BOROUGH OF QUEENS.

Elementary Schools.

- Public School No. 4, Prospect street, near Beebe avenue, Long Island City.
- Public School No. 59, University place, Woodhaven.

The Board of Education has authorized the establishment of kitchens in the following schools, and the plants will be installed as soon as money is available for the purpose:

Manhattan—

- Public School No. 40, No. 320 East Twentieth street.
- Public School No. 169, Audubon avenue and One Hundred and Sixty-eighth street.

The Bronx—

- Public School No. 11, Ogden avenue, High Bridge.
- Public School No. 16, Matilda street, Wakefield.

Brooklyn—

- Public School No. 95, Van Sicklen street, near Neck road.
- Public School No. 119, Flatbush avenue and Alton street.

Richmond—

- Public School No. 17, Prospect avenue, New Brighton.
- Public School No. 18, Broadway, West New Brighton.
- Public School No. 20, Heberton avenue, Port Richmond.

REPORT No. 6.

Manual Training in the Elementary Schools—Time and Money Wasted on Constructive Work—Technical Training Should be Eliminated—Unnecessary Supervision.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions to investigate the teaching of manual training in the elementary schools of the City, from the viewpoint of possible economies, I beg to submit the following report:

The term manual training, in its broad or generic sense, includes all school occupations, save writing, in which the hand employs tools as an educative agency. It embraces drawing, both freehand and mechanical; painting; all kinds of construction, or making, in paper, pasteboard, wood and other materials; needle work, and cooking. This is the import of the term manual training as originally used by the Board of Education, and it seems best to hold to this broad meaning in these reports, although the term has since come to be more closely identified with shop work alone. As sewing and cooking have already been handled in detail in previous reports, this report will be devoted mainly to drawing and constructive work, although it concludes with a resume of the whole subject of manual training in the elementary schools.

HISTORY OF THE WORK.

Of the several branches of manual training, drawing was first introduced into the public schools. This subject has been taught in the schools of the City for more than forty years; the Civil List of 1864 contains the names of drawing teachers, it being customary at that time to have one special teacher for each ward. The course of study published in 1867 included drawing for certain classes in both primary and grammar grades. In 1884 drawing was made a part of the regular work in all classes in the elementary schools.

Other lines of manual training followed close upon drawing. Shop work, or simple carpenter work, and other forms of constructive work were introduced in 1888. The shop as an educative agency originated in Russia, and was first introduced into America by Dr. John D. Runkle, as a direct outcome of a school exhibit made by the

Imperial Technical School of Moscow, at the Centennial Exposition at Philadelphia in 1876. Dr. Runkle, who was then President of the Massachusetts Institute of Technology in Boston, was so impressed with the educational possibilities of the shop as a laboratory for teaching the mechanical arts that he set up a shop in his school during the following year. The Manual Training School in St. Louis, the Chicago Manual Training School and the Philadelphia Manual Training High School were established during the next eight years.

By 1886 manual training had become the foremost topic of discussion in educational conventions and shop work was already being introduced into high schools and the two upper grades of elementary schools in some of the leading cities. The Swedish system of sloyd, or simple work in wood, was combined with the Russian idea of a shop and adapted to American schools. Since that time the kindergarten occupations have invaded the lower grades and now educators are seeking to develop a scheme of manual work for all the grades in the elementary schools.

NEW YORK CITY ADOPTS THE IDEA.

In 1887 the New York City Board of Education appointed a committee to consider the introduction of manual training into the schools. After several months spent in an investigation, which included the gathering of data concerning the status of such work in Russia, Germany, France and other European countries, together with a personal inspection of what was being done in Boston, Philadelphia, Baltimore, St. Louis, Chicago, Cleveland and other American cities which had introduced manual training, a lengthy report was submitted to the Board of Education and adopted. The report contained the following conclusions:

"Resolved, That the kind of instruction known as manual training should be introduced into the primary and grammar schools.

"Resolved, That for the primary school the instruction in manual training to be added should consist in the construction by use of splints, wire, thread, paper, paste-board and clay, of the forms now prescribed in the course for drawing.

"Resolved, That in the grammar schools the drawing should be modified so as to include drawing to a scale and corresponding constructive work should be added.

"Resolved, That in girls' grammar schools sewing should be taught from the eighth to the fourth grades, inclusive.

"Resolved, That in girls' grammar schools cooking should be taught in the third and second grades.

"Resolved, That in boys' grammar schools work-shop instruction should be given from the fifth to the first grade, inclusive; that, while wood turning and some metal work are essential to complete work-shop instruction, the principal benefits of such instruction may be obtained through carpenter work and joinery alone, which, on account of the room required, are all that should be undertaken at present."

It will be noted that the term manual training is here used in its broad sense to include cooking and sewing, as well as drawing, shop work and other forms of constructive work.

Courses of study were outlined in the new subjects, such special teachers as were needed to start the work were appointed, kitchens and work-shops were fitted up, and the instruction of pupils began in 1888.

DRAWING AND CONSTRUCTIVE WORK.

The course of study in manual training for the elementary schools adopted by the Board of Education May 27, 1903, includes an eight years' course in drawing and constructive work, besides the courses in sewing and cooking. Drawing and constructive work embraces all the manual training work, except sewing and cooking, the term drawing being used to cover all fields of representation and design, and the term constructive work to embrace all forms of making. The several lines of manual training are shown in relation in the following classification:

Manual Training:

1. Sewing.
2. Cooking.
3. Drawing.
 - (a) Freehand.
 - (b) Mechanical.
 - (c) Design.
4. Construction or making.
 - (a) In class room.
 - (b) In shop.

As shown in the syllabus which accompanies the course of study,

"The general purpose of the instruction in the manual branches is the development of the power to observe accurately and to express freely; the development of muscular co-ordination, or manual dexterity; the development of individuality and originality in planning and execution; the fostering of a love of order, neatness and system in work, of a love of beauty and an appreciation of what contributes to that desirable attribute—taste. Further, the manual arts are taught to the child in order that, through the expression of his deep-lying instincts to tell, to construct and to decorate, he may become conscious of his own powers and of their value, of his relation to his fellows, and to the world in which he lives.

"The course in the arts is thus presented as a co-ordinate whole rather than as a series of unrelated subjects. The different branches—drawing, construction and design—are closely related to one another, in order that the exercises may rise as far as possible in the child's interest in his immediate surroundings."

FREE HAND DRAWING.

Instruction in the free-hand representation of objects is given during the entire eight years. During the first four years the work consists in the drawing of leaves, flowers, fruits and other natural objects, together with balls, boxes and other common things whose forms are based upon the sphere, the cylinder and the prism. Attention is directed to mass, proportion and direction of line, the aim being to secure drawings which are large and free.

In the fifth year the drawing of groups of objects is introduced, and the principles of pictorial composition are taken up and applied. In the sixth year special attention is given to the principles of perspective. In the seventh and eighth years the same work is continued, an additional variety of forms being introduced and special attention being given to the drawings of cylindrical and conical objects, the drawing of plant forms, and forms distinguished by fine line, color and proportion.

The materials used in this free-hand drawing are crayon, charcoal, chalk, pencil or brush. During the first four years special attention is given to illustrative drawing, the child making simple drawings in crayon, charcoal, pencil or water color to illustrate incidents in his own experience, stories which he has been told, and pictorial ideas developed in the nature study and other branches.

Free-hand drawing is one of the best means of training a child to see and to express what he sees. It is an essential part of education and should have a large place in the elementary schools. The instruction in this branch is the most practical part of the whole course in manual training and the one in which the best results are now obtained. The main defect in the work lies in its failure to connect with the instruction given in the other branches. Drawing is a universal tool to be used in studying all objects and it might be made a powerful means of strengthening the work of the school as a whole if it could be correlated with the nature study, the history, geography and other thought subjects, but this can never be accomplished so long as it continues to be a special subject tacked on to the regular course and managed by special teachers. Drawing can only become an integral part of the work as a whole when special teachers are finally dispensed with and regular teachers are held entirely responsible for the instruction in this branch. Drawing is not a new subject in the City schools. It has been taught for nearly half a century. Teachers have had ample time to prepare themselves to handle the subject and they should now be required to do so without extra assistance. A large proportion of the regular class teachers are already able to assume this responsibility and they should be required to do so. It is imperative that this be done at once, not only for the purpose of economizing money, but primarily as a means of improving the teaching of drawing in the schools. A special teacher may help a weak teacher, but she only hinders a competent one. Teachers of ability should be freed from the incubus of special supervision.

CONSTRUCTIVE WORK AND DESIGN.

In addition to free-hand drawing, there is a line of constructive work extending through the full eight years which consists in planning, making and decorating simple articles which are made out of paper, cartridge paper, cardboard, straw board and other materials too numerous to mention. The syllabus prescribes that the articles made should be suggested by the pupil's needs in school and at home, and that they should be decorated with original designs adapted to the material used and consisting of original modifications of geometrical units or units derived from natural forms. It is required that pupils be brought to understand the reasons for each step taken, and simplicity of form and design be emphasized. The aim is to familiarize the child with simple tools and materials and with the use of simple decorative elements.

In the sixth year pupils begin to give special attention to the principles of working drawings. An attempt is made to have them see the necessity for making a plan before constructing an article and they are required to devise original modifications.

During the seventh and eighth years, in schools having work-shops, boys go to the shop and make simple articles in wood. These are decorated with designs which are supposed to be original. In schools not provided with shops, during these years both the boys and girls make patterns, working drawings and designs for articles which they construct in cardboard and other materials that can be manipulated in an ordinary class-room. Instruction in color parallels the work in construction and design, color harmony in nature and industrial art being studied in its application to decorative design.

A great variety of promiscuous activities have been put into the schools under the name of constructive work. In all grades children spend much time in planning, making and decorating paper books, paper calendars, pasteboard boxes, pasteboard picture frames, match strikes, pasteboard bill books, wooden boxes, wooden brackets and innumerable other articles which the course of study says they need either in school or at home. This constructive work is supposed to call for origination or invention on the part of the child, but in practice most of it is the merest imitation or copying.

In all work of this kind each child requires a large amount of individual attention, and such instruction is therefore not adapted to the City schools under their present organization, because one teacher cannot look after fifty children in this sort of work with any fair degree of success. In her struggle to accomplish what is required by the course of study she prolongs the lesson far beyond the time allowed and neglects more important things. Besides, there are no adequate facilities in the ordinary school-room for constructive work, which requires numerous tools and materials, all of which must be distributed and collected during every lesson. This, too, eats up time.

Most of this constructive work in the schools has no connection with anything else. It is simply an aimless making of articles which have no possible use. In its present stage of development the greater part of such work in the regular class-rooms is so unreal and makes so little demand for thought on the part of the children that its educative value does not entitle it to a place in the schools. It is a waste of time and material. This does not apply to the part of the work which is carried on in the shops, where conditions are more favorable and results more satisfactory.

THE WASTE SHOULD NOT CONTINUE.

This attempt to introduce the manual arts into the elementary schools is a crude application of an undeveloped theory in education. It is an experiment, and experiments are a necessary part of educational progress, but they should be confined to model schools and other pedagogical laboratories until the work can be made practical. To carry on such an experiment with half a million children is a criminal waste of time. All students of education have come to see that the manual arts must eventually have a large place in education because construction or making is the primitive and fundamental mode of mental growth, but the attempt to realize this theory in practice under present conditions is beset with difficulties that are fairly insurmountable. For one thing, it is not easy to supply an adequate motive for constructive work in the school-room. In everyday life men are led to make things because they need them, but, so far, the attempt to supply this motive in the school-room has been a deplorable failure. Even the children are not deceived. They know only too well that the articles which they make have no practical use, and that their work is so far not real.

This unreality can never be overcome so long as the school continues to be merely a place apart from life. Some day, when conditions are ripe for the advance and people generally come to a realization of the fact that education is doing and that children must make things in order to develop, the school will have a direct connection with the actual work of the outside world and a plan will be wrought out whereby the older children, at least, can be employed in real manual tasks for an hour or two each day. The attempt to import manual work into the school-room is the crude beginning of this new development in education. Mock dressmaking, dummy kitchens and make-believe carpenter shops in the school-house foreshadow a coming reality. Science is now organizing industry and it must eventually overtake the poor, isolated school and throw it into a practical working relation with the industrial life of the nation. Constructive work, as education, will then become a reality. Meanwhile the Board of Education ought to recognize the sharp limitations which should be put upon all constructive work in the ordinary class-room and not permit pupils and teachers to continue wasting time in this direction.

SUPERVISION OF DRAWING AND CONSTRUCTIVE WORK.

The teaching of drawing and constructive work in the schools is under the general supervision of three directors, who are appointed by the Board of Education for a term of six years, and are subject to the supervision and direction of the City Superintendent.

Under the provisions of the Charter (section 1079) no person is eligible for election as a director of a special branch who is not a graduate of a college or university recognized by the State of New York, a graduate from a course of professional training of at least two years in the special branch that he is to supervise or teach, and a teacher of that special branch with at least three years' successful experience.

The director for Manhattan and The Bronx supervises the instructions in the workshops in these two boroughs, as well as the teaching of drawing and constructive work, his special title being "Director of Manual Training."

The directors are assisted by fifty-four special teachers of drawing who visit the schools to which they are assigned, inspect the work of the various classes, give model lessons and instruct the regular teachers. The following table shows the cost of supervising the instruction in drawing in the five boroughs:

COST OF SUPERVISION.

Name.	Position.	Appointed.	Salary.
<i>Manhattan and The Bronx.</i>			
James P. Haney.....	Director.....	Sept. 14, 1896	\$4,000 00
Frances Alexander.....	Special Teacher.....	June 1, 1898	1,100 00
Sarah A. Coman.....	Special Teacher.....	Nov. 1874	1,400 00
Julia C. Cremins.....	Special Teacher.....	Sept. 13, 1897	1,400 00
Helen A. Daley.....	Special Teacher.....	Sept. 1, 1899	1,400 00
Helen M. DeVeau.....	Special Teacher.....	June 1, 1880	1,200 00
Isabelle Imrie.....	Special Teacher.....	Oct. 20, 1897	1,400 00
Jessie J. Kellogg.....	Special Teacher.....	Oct. 20, 1897	1,400 00
Beccie Lewenthal.....	Special Teacher.....	Feb. 1, 1897	1,400 00
Louisa Pierce.....	Special Teacher.....	Sept. 13, 1897	1,400 00
Anna G. Price.....	Special Teacher.....	Sept. 9, 1901	1,200 00
Abby P. Reed.....	Special Teacher.....	Sept. 13, 1897	1,400 00
Estelle Spencer.....	Special Teacher.....	Sept. 9, 1901	1,200 00
Ida Teed.....	Special Teacher.....	Oct. 20, 1897	1,400 00
Grace E. Townley.....	Special Teacher.....	June 1, 1897	1,400 00
Adelaide V. Watkins.....	Special Teacher.....	Sept. 9, 1901	1,200 00

Name.	Position.	Appointed.	Salary.
Emily A. Weaver.....	Special Teacher.....	Sept. 9, 1901	\$1,100 00
Evangeline Williams.....	Special Teacher.....	Sept. 13, 1897	1,400 00
Adeline Mills.....	Special Teacher.....	Dec. 1, 1902	1,300 00
Helen H. Shreve.....	Special Teacher.....	Dec. 1, 1902	1,300 00
Eunice F. Faulkner.....	Special Teacher.....	Dec. 1, 1902	1,200 00
Ida A. Stone.....	Special Teacher.....	Apr. 1, 1903	1,100 00
Margaret B. Parker.....	Special Teacher.....	Apr. 13, 1903	1,200 00
Grace E. Osborn.....	Special Teacher.....	Apr. 1, 1903	1,100 00
Mildred B. Ruser.....	Special Teacher.....	Apr. 1, 1903	1,000 00
Maria E. Gurnee.....	Special Teacher.....	Apr. 1, 1903	1,000 00
Jessie H. Bingham.....	Special Teacher.....	May 1, 1903	1,200 00
Jessie L. Clough.....	Special Teacher.....	May 4, 1903	1,200 00
Elizabeth E. Morse.....	Special Teacher.....	Sept. 14, 1903	1,200 00
Total.....			<u>\$39,200 00</u>
<i>Brooklyn.</i>			
Walter S. Goodnough.....	Director.....	Jan. 12, 1896	\$4,000 00
Susan M. Orr.....	Special Teacher.....	Nov. 15, 1878	1,400 00
Fannie J. Cooke.....	Special Teacher.....	Oct. 5, 1892	1,400 00
Carrie W. Conklin.....	Special Teacher.....	Sept. 1, 1894	1,400 00
Edna C. Fay.....	Special Teacher.....	Dec. 1, 1896	1,400 00
Lilia A. Ilgenfritz.....	Special Teacher.....	Sept. 1, 1898	1,400 00
Esther A. Smith.....	Special Teacher.....	Feb. 6, 1899	1,400 00
Harriet S. Peck.....	Special Teacher.....	Feb. 6, 1899	1,400 00
Elvie DeGrasse Coster.....	Special Teacher.....	Oct. 1, 1899	1,300 00
Lilian Burdon.....	Special Teacher.....	Jan. 1, 1898	1,400 00
Eva D. Walker.....	Special Teacher.....	Nov. 1, 1899	1,300 00
Mary Spencer.....	Special Teacher.....	Feb. 1, 1900	1,300 00
Lillian M. Macclinchey.....	Special Teacher.....	Apr. 1, 1901	1,400 00
Sylvia C. Warren.....	Special Teacher.....	May 20, 1901	1,200 00
Kate C. Simmons.....	Special Teacher.....	Sept. 9, 1901	1,200 00
Grace L. Wright.....	Special Teacher.....	Sept. 9, 1901	1,400 00
Edna M. Nicholl.....	Special Teacher.....	June 16, 1903	1,000 00
Total.....			<u>\$25,300 00</u>
<i>Queens.</i>			
Frank H. Collins.....	Director.....	.....	\$3,900 00
Augusta Williams.....	Special Teacher.....	Dec. 30, 1898	1,400 00
Margaretta Taylor.....	Special Teacher.....	Jan. 2, 1901	1,200 00

Name.	Position.	Appointed.	Salary
Antoinette L. Brown.....	Special Teacher.....	Sept. 10, 1901	\$1,100 00
Maud Calkins.....	Special Teacher.....	Sept. 10, 1901	1,200 00
Mary J. Swick.....	Special Teacher.....	Sept. 10, 1901	1,200 00
Mary J. Quinn.....	Special Teacher.....	Sept. 10, 1901	1,100 00
Marion Hurlburt.....	Special Teacher.....	Sept. 8, 1902	1,000 00
Josephine M. Littig.....	Special Teacher.....	Oct. 1, 1903	1,000 00
Total.....			\$13,100 00
<i>Richmond.</i>			
Alexander J. Driscoll.....	Special Teacher.....	May 1, 1902	\$2,160 00
Mary E. Pinkham.....	Special Teacher.....	Sept. 9, 1901	1,000 00
Total.....			\$3,160 00
Total in all boroughs.....			\$80,760 00

POSSIBLE REDUCTIONS IN THIS FORCE.

As already stated, a large number of the regular teachers in the schools have now become so proficient in drawing that they are abundantly able to give the instruction in this branch without the help of a special teacher. If all such teachers were excused from special supervision it would be possible to make large reductions in the present corps of special teachers. The elimination of that part of the constructive work which has no intrinsic value would also reduce the need for special teachers.

In addition to this, the introduction of the departmental system of teaching into the higher grades of a large number of the grammar schools makes it practicable to do away with the services of special teachers of drawing in departments in which this system is in operation. The instruction in drawing and constructive work in such schools is now in the hands of teachers who have special aptitude for the work and who naturally develop skill in this direction. The feasibility of dispensing with the special teachers of drawing in the grammar schools is fully recognized by Dr. James P. Haney, Director of Manual Training, Manhattan and The Bronx, who is already preparing to adopt this policy in his field of work. In a report to Superintendent William H. Maxwell, printed in the last annual report, Dr. Haney says:

"The large increase in the number of grammar schools having departmental work in the last two school years has also served to advance the interests of the arts. During the past year over seventy grade teachers have been assigned to departmental work in drawing in the Borough of Manhattan alone. For the most part these teachers have been chosen because of their liking and aptitude for the work, and for the most part they have labored diligently to improve their knowledge and their skill. The responsibility for the drawing and construction in these schools has thus been largely

placed in the hands of those who could devote their entire time to its study and teaching. Higher standards and more thorough instruction have, in a majority of cases, resulted, while the future points to still greater development of the work and to the better technical training of these teachers."

My understanding is that Dr. Haney is now giving a special course of instruction to teachers of drawing in the grammar schools with a view to having them take entire charge of the work during the coming term, which opens in September.

COST OF SUPPLIES.

The instruction in drawing and constructive work requires a great variety of costly materials. The list of supplies furnished in 1903 includes 36 different kinds of paper, besides a great variety of brushes, colors, models, drawing instruments, and such materials as are used in the constructive work previously described. The following is a detailed list of the drawing and constructive supplies used in the schools during the calendar year 1903, together with their quantity and cost, the aggregate cost of such materials being \$71,788.72:

Approximate Quantity and Cost of Materials Used in Connection with the Course of Instruction in Drawing and Constructive Work in the Day and Evening Elementary Schools during the Calendar Year 1903.

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Boards, modeling, 7 x 9 $\frac{3}{8}$ inches.....	1,075	100	\$3.23	\$34 72
Book linen, assorted, 14 x 18 inches.....	656	100	2.71	1,777 76
Boxes, wood, for drawing instruments, 8 $\frac{1}{4}$ x 2 $\frac{3}{4}$ x 1 inch.....	7,020	1,000	22.00	154 44
Boxes, wood, for drawing instruments.....	848	1,000	20.00	16 96
Brushes, extra, for color box.....	979 $\frac{1}{2}$	Doz.	.14 $\frac{1}{2}$	142 03
Brushes, camel hair, No. 2.....	261	Doz.	.22	86 13
Brushes, camel hair, No. 4.....	770	Doz.	.48	369 60
Brushes, camel hair, No. 7.....	6,662 1-6	Doz.	.25	1,665 54
Brushes, camel hair, imported, No. 5.....	790 $\frac{1}{2}$	Doz.	.20	158 10
Brushes, camel hair, imported, No. 6.....	947 1-6	Doz.	.22	208 38
Brushes, sable, imported, No. 7.....	741	Doz.	.50	370 50
Cardboard, gray, 22 x 28 inches.....	30,383	Sheet	.02 1-5	668 43
Chalk, 6 colors ($\frac{1}{2}$ gross in box).....	2,167	Box	.70	1,516 90
Charcoal, Berville's (Grammar), box of 50.....	2,461	Box	.24	590 64
Charcoal, ordinary (Primary).....	3,009	Box	.06	180 54
Charcoal, fine	3	Box	.06	18
Clay, in bags.....	25,967	Pound	.01 $\frac{3}{4}$	357 05
Color box	11,130	Each	.10	1,113 00

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Colors, cake, red, etc., 6 colors.....	488,216	100	\$1.00	\$4,882 16
Colors, moist tube, white, blue, etc.....	300¼	Doz.	.45	135 11
Colors, F. W. Devoe & Co.'s superior moist water, in ½ pans.....	437 7-12	Doz.	.75	328 19
Colors, alizarine, crimson, brown, etc.....	59 2-3	Doz.	1.35	80 54
Colors, cadmium-pale, yellow, etc.....	10¼	Doz.	1.67½	17 17
Colors, aureolin, burnt carmine, etc.....	3 5-6	Doz.	2.87½	11 02
Colors, separate, to refill color box.....	68,036	Cake	.01	680 36
Colors, separate, to refill color box.....	42,250	100	1.25	528 12
Color trays, separate, 4 colors, to fit color box....	594	Each	.01¼	7 43
Compasses, without pencils, Faber's No. 1754....	751	Doz.	.82	615 82
Compasses, without pencils, Faber's No. 576....	181½	Doz.	.59	59 89
Compasses, without pencils, Eagle No. 569.....	800	Doz.	1.44	1,152 00
Compasses, without pencils, White's.....	10½	Doz.	.84	8 47
Compasses, leads for, No. 569.....	1,813	Doz.	.06	108 78
Compasses, leads, boxes, No. 3.....	268	Box	.03	8 04
Crayons, 6 inches, red, etc., 8 colors.....	2,527	Gross	1.15	2,906 05
Crayons, checking, No. 6.....	1,260¾	Gross	1.50	1,891 12
Crayons, colored, 3½ inches long, 1 each of 7 colors	16,809	Box	.04¾	798 43
Crayons, colored, 7 colors.....	1,000	....	....	55 00
Cups, enameled water color.....	49,896	100	1.75	873 18
Denim	13,624	Yard	.14 2-3	1,998 19
Easels, pine, folding, 6 feet high.....	42	Each	1.50	63 00
Fixatif, 2-ounce bottles.....	53½	Doz.	.58	31 03
Glue, liquid, Le Page's, 4-ounce bottles.....	2,359	Doz.	1.32	3,113 88
Hektograph, 14½ x 9½ inches.....	211	Each	1.40	295 40
Ink, India, liquid, bottles	191 5-6	Doz.	.70	134 29
Mechanical drawing kits, No. 1.....	2,163	Kit	.20	432 60
Mechanical drawing kits, No. 2.....	1,888	Kit	.37½	708 00
Mechanical drawing kits, No. 3.....	104	Kit	.60	62 40
Models, drawing, 2 inches, 50 in box, Nos. 1 to 11	4,234½	Box	.72	3,048 84
Models, drawing, 6 x 12 inches, cone.....	59	Each	.75	44 25
Models, drawing, cylinder.....	52	Each	.75	39 00
Models, drawing, cube.....	260	Each	.65	169 00
Models, drawing, square prism.....	59	Each	.75	44 25
Models, drawing, square pyramid.....	55	Each	.75	41 25
Models, drawing, square plinth.....	28	Each	.35	9 80

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Models, drawing, round plinth.....	26	Each	.35	\$9 10
Models, drawing, hexagonal prism.....	32	Each	.90	28 80
Models, drawing, hexagonal pyramid.....	23	Each	.90	20 70
Models, drawing, spheres.....	2	Each	.90	1 80
Models, drawing, small solids.....	4,365	100	1.50	65 48
Models, mechanical drawing.....	16	Box	2.39	38 24
Model stands, adjustable to desk.....	172	Each	.75	129 00
Palettes, water color, enameled.....	29,953	100	1.68	503 21
Paper, colored, books, 96 colors, printed names, 4 x 1 inches.....	112 5-6	Doz.	.13	14 67
Paper, colored books, 60 colors, 5 x 1¼ inches, two tints	1,950	100	.94	18 33
Paper, colored, teachers', 8 x 6 2-3 inches, 6 packs of 18 sheets to bundle.....	406	Bundle	.11 2-3	47 36
Paper, parquetry, bundles containing 1,500 forms..	564	Bundle	.08 2-3	48 88
Paper, colored, 4 x 4 inches, package of 100 sheets	854	Package	.07	59 78
Paper, colored, 3 x 9 inches, package of 100 sheets	225	Package	.11½	25 88
Paper, colored, 5 x 5 inches, package of 100 sheets	2,476	Package	.11¼	278 55
Paper, colored, package of 100 sheets.....	38	Package	.14½	5 51
Paper, colored, 6 x 9 inches, package of 100 sheets	455	Package	.22	100 10
Paper, colored, Prang's No. 7.....	1	Bundle	.55	55
Paper sheets, 24 x 28 inches, assorted colors.....	433	Sheet	.03 1-5	13 86
Paper, ¼ x 9 inches marginal strips, package of 100.....	683	Pkg.	.017½	12 81
Paper, engine colored, assorted, 6 x 9 inches, 1,000 sheets	518	Pkg.	.39 1-3	203 75
Paper, engine colored, assorted, 6 x 9 inches....	2	Pkg.	.44	88
Paper, folding, 5 x 5 inches, engine colored, assorted, 1,000 sheets.....	4,531	Pkg.	.17 1-3	785 37
Paper, folding, heavy, 7 x 7 inches, assorted colors, 100 sheets.....	12,425	Pkg.	.07	869 75
Paper, folding, 4 x 4 inches, package of 100 sheets	2,221	Pkg.	.01 2-3	37 02
Paste, 5-pound cans.....	48	Can	.30	14 40
Paper, drawing, white, 7 x 9 inches.....	7,135	Ream	.31	2,211 85
Paper, drawing, white, 8 x 10½.....	5,921	Ream	.41 1-3	2,447 35
Paper, drawing, white, 9 x 11½.....	6,145	Ream	.509	3,127 80
Paper, drawing, white, 10 x 14, for brush work..	1,000	Ream	.689	689 00
Paper, drawing, white, 12 x 16.....	118	Ream	1.05	123 90

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Paper, drawing, white, 15 x 22.....	132	Ream	\$2.21 ½	\$292 38
Paper, drawing, yellow, manilla, 7 x 9 inches....	8,680	Ream	.14 ¼	1,236 90
Paper, drawing, yellow, manilla, 8 x 10 ½ inches.	7,333	Ream	.193	1,415 27
Paper, drawing, yellow, manilla, 9 x 11 ½ inches.	6,755	Ream	.23 2-3	1,598 68
Paper, drawing, yellow, manilla, 12 x 18 inches..	61	Ream	.50	30 50
Paper, drawing, gray, manilla, 7 x 9 inches.....	9,155	Ream	.14 ⅝	1,338 92
Paper, drawing, gray, manilla, 8 x 10 ½ inches..	7,790	Ream	.19 ½	1,519 05
Paper, drawing, gray, manilla, 9 x 11 ½ inches..	7,424	Ream	.24 ⅞	1,791 04
Paper, bogus, for colored chalk work, 7 x 12 inches	7,208	Ream	.17 ½	1,261 40
Pictures for study.....	16	Set	.50	8 00
Paper oak tag, 7 ½ x 10 inches.....	1,929	Ream	.31 ½	607 64
Paper, oak tag, 9 x 14 inches.....	2,569	13-20 Ream	.63 ½	1,631 73
Paper, oak tag, 24 x 36 inches.....	281	Ream	4.20	1,180 20
Paper, imperial tinted crayon.....	4	Quire	1.30	5 20
Paper, charcoal, white, French, in pads 11 ½ x 15 ½ inches.....	280	Pad	.25	70 00
Paper, charcoal, Royal, 12 ½ x 19 inches.....	830 ½	Quire	.15	124 58
Paper, charcoal, white, Royal, 19 x 25 inches.....	35	Quire	.30	10 50
Paper, cartridge, assorted, 14 x 18, 1,000 sheets to package	3,785	P'kg.	.72	2,725 20
Paper, German.....	5	Yard	.12	60
Paper, tracing, ordinary, 7 ½ x 10 inches.....	680	Quire	.48	326 40
Paper, 15 x 11 inches, for mechanical drawing....	22	Ream	3.10	68 20
Paste, Higgins' liquid, 14-ounce jars.....	4,853	Jar	.288	1,397 66
Pens, right line.....	50	1-3 Doz.	1.10	55 37
Plastic erasers, for teachers' use.....	633	Doz.	.25	158 25
Prism, glass, 5 inches.....	339	Each	.68	27 12
Prism, glass, 6 inches.....	149	Each	.68	11 92
Prism, glass, 8 inches.....	254	Each	.12	30 48
Protractors, horn.....	85	Doz.	1.25	106 25
Protractors for blackboard, wood.....	95	Each	1.19	113 05
Protractors, brass.....	4,968	Each	.04 ½	223 56
Rulers, 12-inch, brass edge.....	2,150	Doz.	.38 ½	827 75
Spatulas	15	7-12 Doz.	.60	9 35
Splints, 10-inch, colored.....	224,500	1,000	.83	186 34
Splints, 6-inch, colored.....	401,800	1,000	.50	200 90
Sticks, colored, square, 1-inch.....	89,000	1,000	.05 ¼	4 67
Sticks, colored, square, 2-inch.....	77,000	1,000	.07 ¼	5 58

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost.
Sticks, colored, square, 3-inch.....	77,000	1,000	.09¼	\$7 12
Sticks, colored, square, 4-inch.....	93,000	1,000	.11¾	10 93
Sticks, colored, square, 5-inch.....	71,000	1,000	.14¾	10 47
Strawboard, 9 by 12 inches, 50 sheets to package.	2,466	Pkg.	.17	419 22
T squares	6 5-6	Doz.	.90	6 15
Triangles, wood, medium, 30 by 60 degrees....	2,617	Each	.05	130 85
Triangles, wood, 45 degrees.....	3,306	Each	.02½	82 65
Triangular scales	213	Each	.35	74 55
Brushes, water color, Japanese.....	338	Doz.	.18	60 84
Crayon, Conte black	29	Gross	.45	13 05
Crayon, sauce, Lemoine.....	2 ½	Gross	2.30	4 89
Drawing instruments, German silver.....	445	Box	1.95	867 75
Paper, drawing, Whatman's 17 by 22 inches, 34-pound	298	Quire	.78	232 44
Paper, drawing, Whatman's, 22 by 30, 72-pound.	158 ½	Quire	1.65	261 53
Paper, drawing, Japanese rice, 9½ by 12½ inches	343	Ream	2.95	1,011 85
Paper, drawing, Japanese rice, 11 by 15 inches..	29	Ream	3.60	104 40
W. C. brushes.....	6 1-6	Doz.	.20	1 23
Paper, gray, Estompes, No. 2.....	8 ½	Gross	.48	4 08
Paper, gray, Estompes, No. 4.....	118 5-12	Gross	.72	85 26
Paper, gray, Tortillon's	6	Gross	.48	2 88
Thumb tacks, in gross boxes.....	4,641	Gross	.20	928 20
Geometrical solids	1	Pkg.	.18	18
Paper, antique crayon	20	Yard	.12	2 40
Brass crayon holders	2 ¾	Doz.	.18	50
Crayon, checking, Eagle, No. 1712, red.....	½	Gross	5.50	2 75
Crayon, checking, Eagle	6	Gross	3.50	21 00
Crayon, checking, Eagle, Dixon's.....	2 2-3	Gross	6.00	16 00
Mechanical drawings	38	Box	2.45	93 10
T squares.....	3 ¾	Doz.	1.30	4 87
Grand total.....				\$71,788 72

SHOP WORK.

As already stated, in boys' schools the constructive work in the upper grades consists for the most part of simple work in wood which is carried on in the ordinary class-rooms or in the shops provided for the purpose. The first work-shop was opened in old School No. 1 (now 180) in Vandewater street, in 1887. By the close of the following year six more shops had been opened and the work of installing such plants has

proceeded gradually, until there are now forty-four work-shops in operation in Manhattan and The Bronx. Shop work has not yet been introduced into the elementary schools of Brooklyn, Queens and Richmond, but it will be in the near future when the shops now being fitted up are ready for occupation.

A shop usually contains fifteen work benches, each accommodating two boys and thirty sets of common tools, including planes, chisels, saws, hammers, screw drivers, etc. It is fitted up with cases and closets for tools, models, finished articles and supplies of various kinds, and has enough recitation chairs to accommodate the boys during the class instruction, which usually precedes individual work at the bench. The total cost of fitting up a new shop, including all necessary supplies for one year, is estimated at \$750.

COST OF SHOP INSTRUCTION.

The instruction in the shops is given by teachers who are assigned to schools having shops and who devote all their time to this particular work. A single school usually occupies the full time of one teacher, although in several instances the same teacher has charge of the work in two schools, dividing his time between them. The Civil List for January, 1904, contains the names of thirty-two shop teachers whose salaries aggregate \$43,290 per year. A shop teacher receives \$900 for the first year and an annual increase of \$105 until a maximum of \$2,160 is reached.

To be eligible for election as a teacher of shop work in the elementary schools of the City a person must be a graduate from a recognized high school or institution of equal rank, and must have completed a satisfactory course of professional training of at least two years in shop work. He must pass a written examination in plain geometry, mechanical and free-hand drawing, the principles and practice of shop work, methods of instruction and class management, and also an oral examination which includes tests of technical skill and ability to instruct children.

COST OF SHOP SUPPLIES.

The list of work-shop supplies includes 171 different items, the majority of which are tools of various sizes or brands, and wood of different kinds. The following is a list of the work-shop supplies used during the calendar year 1903, together with the quantity and cost of each:

Approximate Quantity and Cost of Materials Used in Connection with the Course of Workshop Instruction in the Day and Evening Schools during the Calendar Year 1903.

Description of Goods.	Quantity.	Unit.	Unit Price.	Total Cost
Alcohol	1	Quart	.88	\$0 88
Awls, scratch awl, 2½-inch forged blade, maple-wood handle	1,510	Each	.04	60 40
Benches, as per specifications and drawings....	175	Each	36.00	6,300 00

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Bevels	3	Each	.27	\$0 81
Bits, twist, 4-16 inch.....	181	Each	.10	18 10
Bits, twist, 6-16 inch.....	149	Each	.11	16 39
Bits, twist, 8-16 inch.....	202	Each	.12	24 24
Bits, twist, 10-16 inch.....	90	Each	.13	11 70
Bits, cast-steel, bright centre, 3-16 inch.....	7	Each	.04	28
Bits, cast-steel, bright centre, ¼ inch.....	31	Each	.05	1 55
Bits, cast-steel, bright centre, ⅜ inch.....	13	Each	.05	65
Bits, cast steel, bright centre, ½ inch.....	35	Each	.06	2 10
Bits, cast-steel, bright centre, ⅝ inch.....	13	Each	.07	91
Bits, small, expansive, boring, from ⅝ inch to 1¾ inches	54	Each	.54	29 16
Bits, gimlet, 2-32-inch, 4-32-inch, 6-32-inch, 8-32-inch	529	Each	.05	26 45
Bits, screwdriver	84	Each	.05	4 20
Boxes, mitre, for molding 2½ to 4 inches....	21	Each	1.14	23 94
Braces, 6-inch sweep, ball bearing.....	448	Each	.35	156 80
Brushes, varnish, 1½-inch flat.....	1,280	Each	.04½	57 60
Butts, brass, 1 inch, middle.....	174	Doz.	.06	10 44
Chisels, firmer, 5½ inches from bolster to point, best quality, 1 inch.....	760	Each	.21½	163 40
Chisels, firmer, 5½ inches from bolster to point, best quality, ½ inch.....	909	Each	.17½	159 08
Chisels, firmer, 5½ inches from bolster to point, best quality, ¼ inch.....	731	Each	.13½	98 69
Cloth, emery, No. 00 to 1½.....	16 3-10	Ream	7.25	118 18
Countersinks, rose, countersinks, case steel, ½ inch	91	Each	.08¾	7 96
Dividers, winged, 6-inch heavy cast-steel joint and set screw.....	464	Each	.11¼	52 20
Dowels, wood, ¼ inch.....	3,869	100 feet	.09½	3 68
Dowels, wood, ⅜ inch.....	3,919	100 feet	.11½	4 51
Dowels, wood, ½ inch.....	3,066	100 feet	.13	3 99
Emery, Nos. 40 to 150, 10-lb. cans.....	5	Can	.55	2 75
Files, flat, bastard, 10 inches.....	189	Each	.10¾	20 32
Files, flat, second cut, 10 inches.....	218	Each	.12½	27 25
Files, half-round, bastard, 10 inches.....	215	Each	.14	30 10
Files, half-round, second cut, 10 inches.....	142	Each	.15½	22 01
Files, round, bastard, 10 inches.....	82	Each	.08¾	7 17
Files, 3-square, taper, smooth, 6 inches.....	233	Each	.05	11 65
Gauges, bit, gauges for bits up to 1 inch.....	22	Each	.15	3 30

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Gauges, boxwood, plaited head, brass thumb-screws and shoe.....	832	Each	.18	\$149 76
Glue, liquid, fish, gallon-cans, can included....	62	Gallon	1.19	73 78
Gauges, firmer, 5½ inches from bolster to point, best quality, ¾ inch.....	782	Each	.24	187 68
Gauges, firmer, 5½ inches from bolster to point, best quality, ½ inch.....	825	Each	.21	173 25
Gauges, firmer, 5½ inches from bolster to point, best quality, ¼ inch.....	503	Each	.18¾	94 31
Grinder, chisel.....	79	Each	.54	42 66
Hammer, claw.....	772	Each	.35	270 20
Hammer, tack, claw.....	3,246	Each	.11½	373 29
Handle, chisel, for tanged chisels, assorted, applewoods.....	13½	Doz.	.19½	2 63
Hatchets, 4 inches.....	88	Each	.23	20 24
Hooks and eyes, brass, ¾ inch.....	71	Doz.	.05	3 55
Knives, Sloyd, 3-inch blades, extra heavy....	2,930	Each	.17½	512 75
Letters, steel, ¼ inch, set of 27.....	14	Set	1.20	16 80
Levels, 24 inches, cherry, arch top plates, 2 side views, polished.....	7	Each	.29	2 03
Locks.....	3½	Doz.	1.44	4 44
Mallets, round, lignum vitae, 3-inch face....	169	Each	.14	23 66
Nails, cut, 4d.....	120	100 lb.	2.60	3 12
Nails, cut, 6d.....	93	100 lb.	2.50	2 33
Nails, cut, 8d.....	318	100 lb.	2.40	7 63
Nails, cut, 10d.....	127	100 lb.	2.35	2 98
Nails, wire brads, ½ inch, No. 18.....	294	Lb.	.08	23 52
Nails, wire brads, ¾ inch, No. 18.....	266	Lb.	.06½	17 29
Nails, wire brads, 1 inch, No. 17.....	143	Lb.	.05	7 15
Nails, wire brads, 1¼ inches, No. 16.....	141½	Lb.	.04	5 66
Nails, wire brads, 1¼ inches, No. 15.....	4	Lb.	.03½	14
Nails, wire, 1¼ inches, No. 12.....	214	Lb.	.03½	7 49
Nails, wire, 1¼ inches, No. 13.....	111	Lb.	.03¾	4 16
Nails, finishing, 1½ inches.....	121	Lb.	.04	4 84
Numbers, steel, ¼ inch, set of 9.....	17	Set	.39	6 63
Oil, boiled, in gallon cans.....	25	Gallon	.65	16 25
Oil, hard, in gallon cans.....	45	Gallon	1.20	54 00
Oil, sperm, in gallon cans, best quality.....	85	Gallon	.82	69 70
Oilers, brass, 1 pint.....	109	Each	.14	15 26
Oilers, steel, 2½-inch diameter.....	16	Each	.05	80
Paper, sand, Nos. 00 to 3.....	94 2 5	Ream	1.44	135 93

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Planes, block, 6-inch iron, nickel-plated, 1 $\frac{3}{4}$ inches	578	Each	.60 $\frac{1}{2}$	\$349 69
Cutters for above planes.....	154	Each	.09 $\frac{1}{2}$	14 63
Planes, combination, No. 45, adjustable, machine, heading	3	Each	4.52	13 56
Planes, fore, iron, adjustable, 18 inches, 2 $\frac{3}{8}$ inches	9	Each	1.60	14 40
Planes, jack, wood, 15 inches, 2 inches.....	114	Each	.80	91 20
Cutters for above planes.....	66	Each	.14	9 24
Planes, smoothing, iron, 8 inches, adjustable, 1 $\frac{3}{4}$ inches	988	Each	1.07	1,057 16
Cutters for above planes.....	89	Each	.13	11 57
Plyers, 4 $\frac{1}{2}$ inches, flat nose, black.....	298	Each	.06 $\frac{1}{2}$	19 37
Plyers, combination, cutting and gas, polished..	21	Each	.55	11 55
Rasps, half-round, medium cut, 10 inches.....	177	Each	.21	37 17
Rasps, half-round, fine cut, 10 inches.....	90	Each	.27	24 30
Rulers, boxwood, 2 feet, 4-fold, arch joint, 8ths and 16ths.....	124	Each	.11 $\frac{1}{2}$	14 26
Rulers, steel, 24 inches., graduated.....	262	Each	.26	68 12
Sandpaper	17-20	Ream	1.55	1 32
Saws, back, 10 inches, for wood, cast-steel, blue back	840	Each	.60	504 00
Saws, cross cut, first quality cast-steel blades, 18 inches.....	336	Each	.62	208 32
Saws, hack, Star No. 0.....	40	Each	.59	23 60
Blades, 8 inches.....	17 $\frac{1}{2}$	Doz.	.35	6 13
Saws, nest of, Disston's Pruning, Compass, key-hole	100	Set	.48	48 00
Saws, rip, 20 inches, 7 points, first quality, rubbed, 4 screws.....	335	Each	.72	241 20
Saws, sharpening, cross cut.....	21	Each	.23	4 83
Saws, sharpening, back.....	48	Each	.10	4 80
Scraper, steel, 3 x 5 inches.....	173	Each	.04	6 92
Screw drivers, 4 inches, round blade, blonized handle	646	Each	.07 $\frac{1}{2}$	48 45
Screw drivers, champion, 10-inch blade.....	54	Each	.29	15 66
Screw drivers, champion, 2 $\frac{1}{2}$ -inch blade.....	22	Each	.09	1 98
Screws, hand, 10 inches, oiled maple.....	374	Each	.23 $\frac{1}{2}$	87 89
Screws, 14 inches, oiled maple.....	139	Each	.33	45 87
Screws, round head, brass, $\frac{1}{2}$ inch, No. 3..	127	Gross	.10	12 70
Screws, round head, brass, $\frac{1}{2}$ inch, No. 2..	15	Gross	.11 $\frac{1}{2}$	1 73
Screws, flat head, bright, $\frac{1}{2}$ inch, No. 3.....	61	Gross	.05 $\frac{1}{2}$	3 36
Screws, flat head, bright, $\frac{3}{4}$ inch, No. 5.....	84	Gross	.06	5 04

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Screws, flat head, bright, $\frac{3}{4}$ inch, No. 7.....	33	Gross	.07	\$ 2 31
Screws, flat head, bright, 1 inch, No. 6.....	46	Gross	.07 $\frac{1}{2}$	3 45
Screws, flat head, bright, 1 inch, No. 8.....	50	Gross	.08 $\frac{1}{2}$	4 25
Screws, flat head, bright, 1 $\frac{1}{4}$ inches, No. 7....	53	Gross	.09	4 77
Screws, flat head, bright, 1 $\frac{1}{4}$ inches, No. 10..	43	Gross	.10 $\frac{1}{2}$	4 52
Screws, flat head, bright, 1 $\frac{1}{2}$ inches, No. 8...	19	Gross	.10 $\frac{1}{4}$	2 00
Screws, flat head, bright, 1 $\frac{1}{2}$ inches, No. 10..	48	Gross	.11	5 28
Screws, flat head, bright, 1 $\frac{3}{4}$ inches, No. 10..	11	Gross	.13	1 43
Screws, flat head, bright, 1 $\frac{3}{4}$ inches, No. 11..	4	Gross	.13 $\frac{3}{4}$	55
Screws, flat head, bright, 2 inches, No. 9.....	9	Gross	.13 $\frac{1}{4}$	1 19
Screws, flat head, bright, 2 inches, No. 11.....	16	Gross	.14 $\frac{1}{2}$	2 32
Screws, round head, blued, $\frac{1}{2}$ inch, No. 3....	14	Gross	.06 $\frac{3}{4}$	95
Screws, round head, blued, $\frac{3}{4}$ inch, No. 5....	16	Gross	.07 $\frac{1}{2}$	1 20
Screws, round head, blued, $\frac{3}{4}$ inch, No. 7....	12	Gross	.09	1 08
Screws, round head, blued, 1 inch, No. 6....	29	Gross	.09 $\frac{1}{2}$	2 76
Screws, round head, blued, 1 inch, No. 8....	20	Gross	.10 $\frac{1}{2}$	2 10
Screws, round head, blued, 1 $\frac{1}{4}$ inches, No. 7..	25	Gross	.11	2 75
Screws, round head, blued, 1 $\frac{1}{2}$ inches, No. 10..	11	Gross	.13	1 43
Screws, round head, blued, 1 $\frac{1}{2}$ inches, No. 8..	32	Gross	.13	4 16
Screws, round head, blued, 1 $\frac{1}{2}$ inches, No. 10..	16	Gross	.14	2 24
Screws, round head, blued, 1 $\frac{3}{4}$ inches, No. 10..	10	Gross	.16	1 60
Screws, round head, blued, 1 $\frac{3}{4}$ inches, No. 11..	3	Gross	.17	51
Screws, round head, blued, 2 inches, No. 9....	2	Gross	.16 $\frac{1}{2}$	23
Screws, round head, blued, 2 inches, No. 11....	3	Gross	.18 $\frac{1}{4}$	55
Sets, nail, $\frac{1}{2}$ inch square, polished, round point	212	Each	.05	10 60
Sets, saw, for hand saws.....	3	Each	.34	1 02
Squares, try, 6-inch nickel-plated, iron stock, graduated blade	951	Each	.16 $\frac{1}{2}$	156 92
Squares try, 15-inch rosewood, brass faced, graduated	64	Each	.33	21 12
Spoke shave, 6-inch blade.....	188	Each	.10 $\frac{1}{2}$	19 74
Stones, grind, 24-inch iron frame, with treadle.	24	Each	11.85	284 40
Shield, pan and bucket.....	6	Each	.79	4 74
Arbors, complete	1	Each	4.00	4 00
Treadle	4	Each	1.26	5 04
Stones, oil, red, Washita, unmounted, 8x2x1 $\frac{1}{4}$ inches	290	Each	.30 $\frac{1}{2}$	88 45
Stones, oil, red, Washita, slips, 4x2 inches, round edges	241	Each	.09	21 69

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Stain, ready mixed, in pound cans.....	1,016	Lb.	.14 $\frac{3}{4}$	\$149 86
Tools, carving, set of six, assorted, with oil and slipstone	79	Set	2.16	170 64
Tray, for oilers, brass.....	8	Each	.30	2 40
Tray, whittling, to be furnished with steel try square	162	Each	1.20	194 40
Veneering, black walnut	210	Sq. ft.	.03 $\frac{1}{2}$	7 35
Veneering, mahogany	10	Sq. ft.	.03 $\frac{1}{2}$	35
Veneering, maple	210	Sq. ft.	.03	6 30
Veneering, white holly.....	210	Sq. ft.	.05	10 50
Vises, 3-inch jaws.....	82	Each	1.39	113 98
Vises, saw-filing, 12 $\frac{1}{2}$ -inch jaws.....	32	Each	1.54	49 28
Extra files	12	Each	.04 $\frac{1}{2}$	54
Wax, bees	118	Lb.	.28	33 04
Wax, hard, finish.....	201	Lb.	.25	50 25
Wood filler, pound cans.....	74	Lb.	.06 $\frac{1}{2}$	4 81
Wood, $\frac{7}{8}$ -inch clear ash, 10 inches wide, 3 feet long, 25 pieces to crate.....	32	Crate	6.50	208 00
Wood, $\frac{7}{8}$ -inch clear white pine, 10 to 12 inches wide, dressed	3,406	Sq. ft.	.09	306 54
Wood, $\frac{7}{8}$ -inch clear white pine, 3-foot lengths, 25 pieces to crate.....	102	Crate	8.00	816 00
Wood, $\frac{5}{8}$ -inch white wood, dressed, board lengths	4,758	Sq. ft.	.06	285 48
Wood, $\frac{5}{8}$ -inch white wood, as above, 3 feet long, 25 pieces to crate.....	199	Crate	5.50	1,094 50
Wood, $\frac{5}{8}$ -inch basswood, dressed, 3-foot lengths, 25 pieces to crate.....	53	Crate	5.50	291 50
Wood, $\frac{3}{4}$ -inch clear white pine, dressed, 3-foot lengths, 25 pieces to crate.....	68	Crate	5.50	374 00
Wood, $\frac{3}{4}$ -inch clear white pine, dressed, board lengths	945	Foot	.06 $\frac{1}{2}$	61 43
Wood, $\frac{3}{4}$ -inch white wood, dressed, 3-foot lengths, 25 pieces to crate.....	273	Crate	5.00	1,365 00
Wood, $\frac{3}{4}$ -inch gum wood, dressed, 3-foot lengths, 25 pieces to crate.....	61	Crate	5.75	350 75
Wood, 3-inch square clear white pine joist, rough, 3-foot, 25 pieces to crate.....	3	Crate	7.50	22 50
Wood, 3-inch square white pine joist, board lengths, dressed	310	Foot	.08 $\frac{1}{2}$	26 35
Wood, 1 $\frac{7}{8}$ -inch square clear white wood joist, dressed, 3-foot, 25 pieces to crate.....	60	Crate	3.50	210 00
Wood, 1 $\frac{7}{8}$ -inch square clear white wood joist, dressed, board lengths.....	3,246	Foot	.04	129 84
Wood, 1 $\frac{7}{8}$ -inch square clear white pine joist, dressed, 3-foot, 25 pieces to crate.....	82	Crate	3.50	287 00

Description of Goods.	Quantity.	Unit.	Unit. Price.	Total Cost.
Wood, 1 $\frac{7}{8}$ -inch square clear white pine joist, board lengths	2,525	Foot	.04	\$101 00
Wood, $\frac{1}{2}$ -inch square white wood strips, dressed, board lengths.....	9,464	Lin. ft.	.01 $\frac{1}{4}$	118 30
Wood, $\frac{7}{8}$ -inch square white pine strips, dressed, board lengths.....	12,271	Lin. ft.	.02	245 42
Wood, $\frac{3}{4}$ -inch basswood, clear, dressed, 4x9 inches, blanks	14,467	100	.85	122 97
Wood, 3-16-inch basswood, clear, dressed, blanks, 4x9 inches.....	89,052	100	.85	756 94
Wood, $\frac{3}{4}$ -inch basswood, clear, dressed, blanks, 4x9 inches	28,650	100	.90	257 85
Grand total.....				\$21,723 29

It is to be noted that most of the articles used in the Brooklyn Manual Training High School are supplied from this list, although tools and machinery are also furnished to that school, from time to time, outside the list on special order of the Board of Education. One order for such machinery in 1903 called for \$3,000 worth of supplies.

TOTAL ANNUAL COST OF MANUAL TRAINING IN THE ELEMENTARY SCHOOLS.

	Cost of Supervision	Cost of Supplies	Total
Sewing	\$66,500 00	\$33,611 42	\$100,111 42
Cooking	38,200 00	9,416 86	47,616 86
Drawing and constructive work.....	80,760 00	71,788 72	152,548 72
Shopwork	43,290 00	21,723 29	65,013 29
Total.....	\$228,750 00	\$136,540 29	\$365,290 29

TIME GIVEN TO MANUAL TRAINING.

In the time schedule on the basis of 1,500 minutes per week, given in connection with the course of study and adopted by the Board of Education last June, the time allotted to drawing and constructive work in the first three years is 160 minutes per week, in the fourth, fifth and sixth years it is 120 minutes per week, and in the seventh and eighth years it is 80 minutes per week. In addition to this, 60 minutes per week are allotted to sewing and constructive work in the first six years and 80 minutes

per week for advanced sewing or cooking during the seventh and eighth years. The time allotted to manual training in each of the eight school years, as compared with that given to the common branches, will be seen from the following table:

TIME SCHEDULE ON THE BASIS OF 1,500 MINUTES PER WEEK.

	Years.							
	1st.	2d.	3d.	4th.	5th.	6th.	7th.	8th.
Drawing and constructive work.....	160	160	160	120	120	120	80	80
Sewing and constructive work.....	60	60	60	60	60	60	...	...
Shop work, cooking or advanced sewing.....	...	...	...	...	...	...	80	80
	<u>220</u>	<u>220</u>	<u>220</u>	<u>180</u>	<u>180</u>	<u>180</u>	<u>160</u>	<u>160</u>
English	450	510	450	375	375	375	360	320
Mathematics	120	150	150	150	150	200	200	160
History .....	...	...	...	...	90	120	120	120
Geography .....	...	...	...	135	120	120	80	...

It will be noted that in the entire scheme laid out for the elementary schools about one-half as much time is allotted to manual training as to the teaching of English, which includes reading, spelling, grammar and composition, both oral and written. Nearly twenty-five per cent. more time is allowed for manual training than is given to mathematics, and more than three times as much as is given to either history or geography.

TOO MUCH TIME.

Teachers and principals are emphatic and fairly unanimous in the judgment that the quantity of work demanded in the manual training course is excessive and that the time consumed by the work is much greater than its practical value can justify. Most of them believe that manual training has a legitimate place as an integral part of the child's education, but they maintain that its place is greatly exaggerated in the present course of study. Because of this exaggeration, the several lines of manual training encroach upon the time which properly belongs to language, mathematics, history and geography. The consensus of intelligent opinion seems to be: "We would not abolish instruction in manual training, but we would greatly curtail it." An extended examination of courses of study in effect in cities and towns throughout the United States has failed to discover another system of schools in which so much time is given to manual training. It appears certain that the metropolis is running to extremes in this matter.

AMERICA TENDS TO EXTREMES.

America is a land of exaggeration and her schools are especially open to excesses because they are subject to local and often merely personal control. They lack that balance which would come from State or national supervision. This country has not

yet developed a national corps of highly trained professional teachers, such as exists in Germany. The natural conservatism of such a body of professional workers would give stability and proportion to the whole educational movement and keep it from getting lost in new educational ventures.

LITTLE ATTENTION GIVEN TO MANUAL TRAINING IN THE ELEMENTARY SCHOOLS OF GERMANY.

Drawing is taught in the elementary schools of Germany, and girls receive instruction in needlework, but neither the clamor of the specialist nor the demands of trade have been able to force other forms of manual training into the comparatively uniform course of study which the German State prescribes for the elementary schools. The German nation still adheres to religion, language, mathematics, history, geography and elementary science as the essentials of the common school education, which it compels every youth to have, and although the school life of the average child in Germany is more than seven years, as against five in this country, the State has steadfastly refused to make any encroachment upon the time allotted to the studies named above.

But, although the school authorities have refused manual training any large place in the regular schools, they emphasize the need for special schools, and so the German government has come to foster a large number of industrial, trade and technical schools, most of which were the result of private initiative.

ENGLAND, TOO, IS CONSERVATIVE.

England, too, has been conservative as regards the introduction of manual training into the elementary schools. The curriculum of such schools in England is fairly uniform all over the country, being fixed, for the most part, by an official code issued annually by the national board of education. At present this curriculum is almost identical with that of Germany, the essential difference being that the English school limits its teaching of drawing to boys and instruction in plain cooking is offered to girls.

THE ACTION OF FRANCE.

France has taken the most radical position as regards instruction in manual training, and America has doubtless been influenced by the policy of that country. Twenty-five years ago France came to believe that her national industries were threatened with decline because of a scarcity of skilled workmen, and, to avert such a calamity, attempted to shape her educational methods to meet directly the requirements of trade. Manual training was seized upon in its technical or industrial aspect, and a national system of industrial training was outlined to take the place of the old form of apprenticeship which was in decay. The Minister of Education co-operated with the Minister of Commerce, and together they promulgated an official program for the public schools, the aim being to make the school approximate the shop. Manual training was made compulsory, and France embarked upon the questionable project of training craftsmen in the public schools.

MENTAL POWER VERSUS MANUAL DEXTERITY.

But it should be kept in mind that France grafted technical instruction upon her primary schools, for the avowed purpose of preparing her youth for the manual trades. In this country manual training has always based its claims upon its educative value rather than upon its industrial utility. Manual training as an industrial agency and manual training as an educative agency are very different things, and in any consideration of the question this distinction must be rigidly maintained.

The central purpose of a common school education is to train the mind. Manual training, so far as it has a rightful place in the elementary school, is mind training through the use of the hand. The very name manual training is unfortunate and misleading because it tends to emphasize manual dexterity as the aim of such instruction rather than mental discipline. Any school exercise, whether with tools or with text books, is valuable as education only in so far as it makes a demand upon the mind for thoughtful, intelligent work. Sewing doll aprons or making bon bon boxes is not necessarily more educative than carrying bricks or shoveling sand. It all depends upon the amount of thought put into the exercise. Manual training as education is the use of the hand to develop the mind, and in going beyond this, we at once enter the field of industrial apprenticeship.

INDUSTRIAL APPRENTICESHIP.

It is now everywhere recognized that some form of school instruction must be instituted to take the place of the old form of apprenticeship which fell into decay upon the incoming of machinery and the rise of the factory system. In Europe trade or industrial schools have been widely established and in the United States this question of industrial apprenticeship is forcing itself to the front and demanding public attention, but the problem is too large to be solved by mere haphazard extensions of the elementary school curriculum. The need is to fix attention upon the fact that the central purpose of the elementary school is to teach the elements of knowledge. Its specific work is to help the child to a mastery of reading, writing and arithmetic, which are the three great tools in acquiring knowledge. All the work of the elementary school should concentrate upon this single objective and manual training, or any other subject, is entitled to attention in these schools only in so far as it contributes to this primary purpose.

It is not the function of the elementary school to prepare pupils for trade, and whenever such work is attempted it sidetracks the legitimate work of these schools. The line should be clearly drawn between manual training as education and industrial apprenticeship or special training for an industrial pursuit. At present, in the City schools, there is a strong tendency to carry manual training over into industrial apprenticeship. This is seen in the elementary schools in the dressmaking which is taught in the upper grades, and also in the work in decorative design, much of the latter being so clearly training for a special occupation that a pupil should not be required to spend time upon it unless he is preparing to make a business of this line of industrial art.

It may be that technical training, or training for a special trade or occupation, has a place in the high schools, and possibly the Department of Education should establish special trade and industrial schools in addition to the technical high school and manual training schools, but certainly specialized instruction does not belong in the elementary schools. It is not the province of these schools to train artists and artisans.

CONCLUSIONS.

To an impartial observer, manual training seems to be running wild in the New York City schools. Under the spell of a great enthusiasm aroused by the educational possibilities of manual work, and a lofty ambition to have the metropolis lead in the movement which is now affecting education all over the country, the Board of Education is forcing manual training into the schools more rapidly than it can be co-ordinated and assimilated and put upon a practical basis. More than ten thousand teachers and half a million children are being turned loose upon lines of manual work for which successful methods of instruction have not yet been developed, and the result is a prodigious waste of time and money, and a general state of confusion which is having disastrous effects on the children of the City.

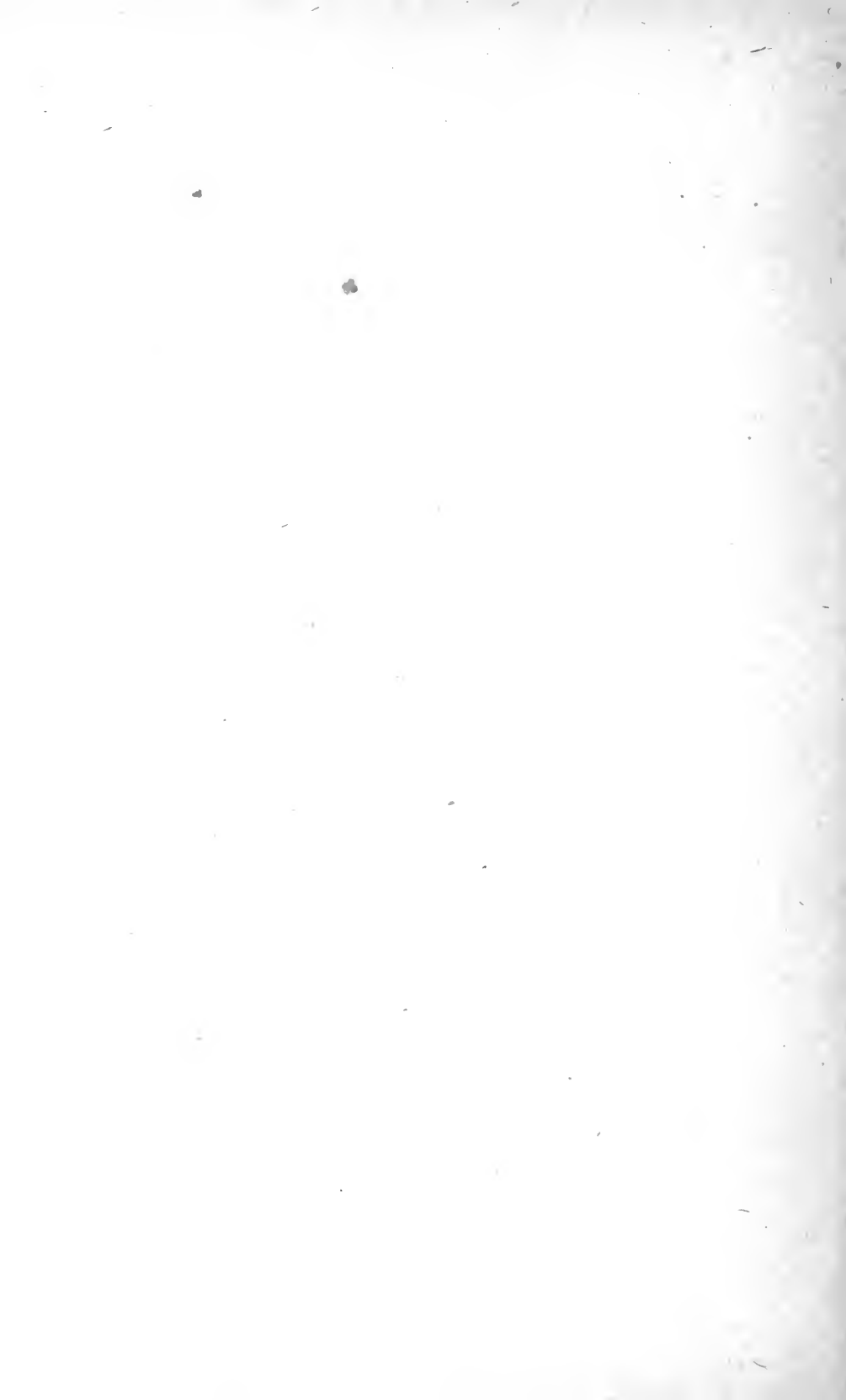
The course of study in manual training as a whole is beyond the scope of the elementary schools, and the responsibility lies with the Board of Superintendents who have failed to distinguish clearly between manual training as education, and technical training or special training for some particular trade or occupation, and have therefore permitted a large amount of work to be introduced into the elementary schools which belongs in the high schools or in special trade and industrial schools. All such work should be eliminated. The course of study also includes a large variety of so-called constructive work, much of which should be eliminated because it has no intrinsic value as education. These reforms in the course of study would cut down expenditures for manual training supplies which now aggregate over \$135,000 a year, reduce excesses in the amount of time devoted to this subject, and decrease the need for special supervision.

More special teachers are employed to supervise the work in manual training than are necessary. Under a proper course of study the majority of the regular class teachers would be able to take entire charge of the instruction in sewing and drawing, and this would enable the Board of Education to dispense with the larger part of the special teachers of these two branches, whose salaries aggregate nearly \$150,000 a year. The reforms indicated in this report would improve the work in the schools.

Respectfully,

(Signed)

(Mrs.) MATHILDE COFFIN FORD.



REPORT No. 7.

Physical Training in the Elementary Schools—Overdone—Needless Supervision.

Hon. EDWARD M. GROUT, *Comptroller*:

SIR—In compliance with your instructions to investigate the work in physical training in the elementary schools of the City, from the standpoint of possible economies, I beg to submit the following report:

The Department of Education has recently introduced an elaborate scheme for physical training into the elementary schools of the City and more than doubled the corps of special teachers which is provided to assist the regular teachers in giving the instruction in this branch. In physical training, as in the other special studies, there is no discrimination between teachers who need supervision and those who do not need it. All are supervised alike regardless of whether they are competent or incompetent. This failure to differentiate between ability and lack of ability makes the system unnecessarily expensive.

The ordinary routine of school work necessitates so much sitting still that some form of physical exercise must be introduced into the school programme, especially when recesses are abolished. The courses of study published from time to time show that physical training has been a part of the regular work prescribed for all classes in the elementary schools of New York City for more than twenty years, although it is only recently that special teachers have been employed to supervise this work. As for Brooklyn, that borough employed a Director of Physical Training as far back as 1893. After consolidation the instruction in this branch was not uniform in the several boroughs and it was considered advisable to appoint a General Director of Physical Training who should have charge of the work throughout the entire City. Dr. Luther Halsey Gulick, formerly of Pratt Institute, Brooklyn, was appointed to this position in February, 1903.

A NEW COURSE OF STUDY.

In order to unify the work, Dr. Gulick prepared a new course of study in physical training, which was adopted by the Board of Education in June, 1903, and was put into effect in the schools last September. This course includes:

(1) Free gymnastics in the classrooms in all buildings not equipped with apparatus.

(2) Gymnastics with light apparatus in gymnasiums, playrooms, or assembly-rooms, for fifth, sixth, seventh and eighth year grades in all buildings equipped with apparatus.

(3) Gymnastic games for yard or classroom for all grades in all elementary schools.

(4) A two-minute free-hand drill for all grades, to be taken twice in the morning and once in the afternoon.

(5) Lessons in physiology and hygiene for all classes in the elementary schools.

FREE GYMNASTICS.

The free-hand work is used in all classes in elementary schools without gymnasiums and in classes in the first four years in schools having gymnasiums. This work consists of free-hand gymnastics suited to the several grades and includes position; stretching; marching; skipping and running; facings; breathing exercises; arm stretching, twisting and turning; knee and leg bending and raising; head bending, turning and bowing; rising and sinking on toes; trunk bending and twisting; jumping, vaulting, kneeling, stepping, and similar movements usually included in a gymnastic course. Exhibit "A" accompanying this report shows the work outlined for Lesson I., Class A, in each year of the elementary course.

Although some new exercises have been added, the course in free gymnastics, as a whole, is neither new nor difficult. Ten different exercises are outlined for each class, but, as there are twenty weeks in a term, this means only one new exercise for each two weeks. In addition to the course of study, a printed syllabus is furnished to each teacher giving in detail all the exercises for her class, and the work for the several grades is so progressively arranged that no great amount of new material is presented for any one class. There is nothing in the nature of the work which makes the teaching of free gymnastics any more difficult than that of reading or arithmetic, and the average class teacher seems quite as competent to handle the former subject as to teach the latter.

During the last twenty years instruction in free gymnastics has become so generally universal as a part of the curriculum in all public schools that the average teacher, wherever she may have received her training and experience, is now fairly well prepared to give such physical exercises as should be included in an elementary course.

HAS GOOD JUDGMENT BEEN EXERCISED?

Among the exercises introduced into the new course in free gymnastics some are, to say the least, peculiar. They have aroused antagonism among teachers and called forth severe criticism from school officers and patrons. Mrs. James M. Hart, of Brooklyn, who, as a member of the local school board in District No. 28, had large contact

with the actual work of the schools, says: "The rowing exercises now given in the schools are an outrage. These and similar disturbances, encouraged under the name of physical training, should be abolished." Mrs. Hart maintains that the purpose of physical culture in the schools is to cultivate dignity and repose, as well as to develop physical strength, and that the exercises given should be adapted to this end.

Mrs. Silas P. Leveridge, a member of the local school board in District No. 4, who is widely known because of her intelligent interest in educational affairs, says: "Some of the exercises laid out for classroom work under the new course of study are ridiculous and whether or not they shall be used in the schools depends upon the amount of common sense principals and teachers may have. One exercise which I saw recently, in which a class of 8B girls were vaulting over their desks, was so absurd as a classroom exercise that it might have seemed comical had it not been so maddening for me, as a school officer, to witness such a senseless disturbance in a school. The exercise was not only unpedagogic but it was unsanitary as well. When it was over, the room was filled with dust, all the impurities from the floor having been raised into the atmosphere which the girls inhaled during the arithmetic lesson which followed. We talk learnedly about psychology but lose sight of common sense. Some of the instructions given by special teachers of physical training are silly. A school is not a circus and it should not be turned into one. Pupils are demoralized by such exercises and unfitted for serious work."

APPARATUS WORK.

The apparatus work in the elementary schools is with light apparatus such as dumb-bells, wands, Indian clubs and bean bags. In the fifth year exercises in the use of one-half pound Indian clubs and one pound dumb-bells are introduced. In the sixth year the boys continue the use of dumb-bells, and iron hoops are introduced for use in girls' classes. Three-quarter-pound Indian clubs or four foot wands are also used.

In the seventh year bar-bells and steel or wooden wands are used in boys' and mixed classes, and one pound dumb-bells and iron hoops in girls' classes.

In the eighth year the same work is continued with the use of heavier apparatus in the boys' classes, and ball exercises are introduced for girls.

About fifty of the elementary schools have gymnasiums and in all new buildings large rooms are set aside for gymnastic exercises. These gymnasiums are equipped with dumb-bells, Indian clubs, wands, hoops and all the usual paraphernalia, and are used by the children in the fifth, sixth, seventh and eighth grades, who take their exercises in the gymnasium instead of in the classroom.

In the departmental system which now obtains so largely in the seventh and eighth grades, and under which each teacher devotes her entire time to the teaching of some one branch, it is customary for one teacher to take charge of the work in

physical training in these two grades in a given school. Such a teacher specializes in physical training and must, in the nature of things, acquire proficiency in this branch of instruction.

GAMES.

In the new course of study games have been introduced into the work outlined for all classes in the elementary schools. In his first annual report to the Superintendent of Schools, Dr. Gulick says: "The adaptation of plays to meet the conditions of modern City life forms at once one of the most important, interesting and difficult of psychological problems. * * * The need of school games as distinguished from school gymnastics is psychological in its nature. The kind of attention given to an active game differs so materially from the attention given to the academic part of the said work as to help the pupil to recover both mentally and physically while playing. It enables him to recover from the effects of fatigue to a larger extent than is possible with school gymnastics."

The course includes games for the playground and games for the classroom, among which are the following:

For the Playground.

Jacob and Rachel.
Tossing bean bags.
Drop the handkerchief.
"Round and round the village."
"Let the feet go tramp."
"London bridge."
Circle ball.
Hunt the fox.
Cross tag.
Centre base.
Prisoner's base.
Jump the shot.
One-legged football.
Nine pins.
Basket ball.
Steeplechase.
Bombardment.

For the Classroom.

Hide the thimble.
Tossing bean bags.
Tag the wall relay race.
Bean bag race.
"Let the feet go tramp."

"You're it."

School-room tag.

Calling names.

Bean bag target.

French blind man's buff.

Thimble ring.

Derby jig.

Passing race.

Stage coach.

Animal blind man's buff.

Mail man.

Spin the cover.

A DEAD LETTER.

Although games have a place in the course of study, they have not as yet gotten into the classrooms, or, at least, not to any considerable extent. Principals and teachers seem to disapprove of this feature of the course and they are meeting it with quiet but effective resistance. There seems to be an opinion that it interferes with the decorum and discipline of the classroom. In investigating this part of the physical training, I first visited one of the largest schools in Brooklyn, but failed to find any classroom games. In answer to inquiries the principal said: "We have not introduced classroom games into our school as the building is not adapted to such work." His tone and manner practically added: "I do not believe in such nonsense in the schools." Another principal said: "I have ordered my teachers to cut out classroom games entirely and use the time allotted to them for arithmetic."

Further visits to numerous schools, both in Manhattan and Brooklyn disclosed but one building in which exercises of this nature were used in the classrooms, although in many places games were being used in the playgrounds among the younger children during recess.

NO RECESSES IN THE GRAMMAR GRADES.

Some time ago recesses were abolished in the fifth, sixth, seventh and eighth school years, and an attempt is now being made to introduce class-room games to furnish the rest and relaxation so needed to break the strain of long school sessions. From nine o'clock until twelve is a big stretch of continuous attention to work, and the exercises in free gymnastics, which are given about the middle of the morning session, are not relaxation, as they require the closest attention on the part of the pupils if well done.

Principals in the older buildings, where the rooms are small, the seats uncomfortable and the ventilation poor, complain that the doing away with recesses has had very injurious effects upon the children. In such buildings fifty children are crowded into a small, dark room, and kept there for three hours at a time. Principals report that they

have protested against this, but without avail. As one of them said: "The edict has gone forth, and, under the present system, a rule is as inflexible as the law of the Medes and Persians. Uniformity must prevail, even though many children suffer."

In dealing with children no rule should be absolutely enforced at all times, and any system is defective in so far as it deprives a principal of the privilege of using good judgment and common sense in adapting rules and regulations to the peculiar conditions which may exist in his particular school.

TWO-MINUTE EXERCISES.

In order to relieve the tedium of long sitting at the school desk and to secure an erect carriage of the body, the following two-minute school setting-up exercise has been introduced into all classes of both elementary and high schools. This exercise is taken twice in the morning and once in the afternoon:

1. Class stand.

2. Deep breathing (4 times). Inhale and exhale forcibly. The inhalation particularly should be forced to the utmost. The neck should be pressed firmly backward against the collar.

3. Stretching (4 times). Bend the back gently forward; straighten the back, raise the chest and lift the arms as high and as far back as possible; keep the elbows straight. The last part of this exercise should be done with as great vigor as possible. Count two while the upward position is held.

4. Knee bending (8 times). Keep the trunk erect; bend the knees half way; rise.

5. Deep breathing (4 times), as at first.

6. Class sit.

In the opinion of many principals and teachers, this simple exercise taken at frequent intervals during the day, with an abundant supply of fresh air, answers all the needs of pupils in the elementary schools.

PHYSIOLOGY AND HYGIENE.

In addition to gymnastics and games, the course in physical training for the elementary schools includes eight years' work in physiology and hygiene. An act of the Legislature makes it obligatory to teach the effects of alcohol, tobacco and other narcotics upon the human system. The law says:-

"The nature of alcoholic drinks and other narcotics and their effects on the human system shall be taught in connection with the various divisions of physiology and hygiene, as thoroughly as are other branches in all schools under State control."

The law requires that this subject shall be taught orally to pupils of the first, second and third year grades, and that the number of lessons given to the pupils in these grades

each year shall not be less than two a week for ten weeks, or the equivalent thereof. It also specifies that all pupils above the third year of school work shall be taught this subject every year with suitable text books in the hands of all pupils, for not less than three lessons a week for ten or more weeks, or the equivalent thereof.

COURSE OF STUDY.

In addition to the effects of alcohol and narcotics, which subject receives attention in the first half of each year, the course of study in physiology and hygiene specifies that:

In the first year constant emphasis should be placed on the practice of cleanliness. Detailed instruction should be given to pupils in regard to cleanliness of the skin, eyes, ears, nose, mouth, hands, neck, body, nails and hair, etc.

In the second year instruction should be given to pupils in regard to the most wholesome foods; the importance of regularity in eating; growth and nutrition. Consideration should be given to the foods that yield the greatest amount of nutriment; to the reasons for having food well cooked; to the unwholesomeness of unripe fruits and the danger of cheap candies, etc.

In the third year pupils should be taught the hygienic value of different kinds of clothing, its adaptability for the different purposes and the methods of cleansing. They should also be taught the correct posture while sitting, standing and lying; the correct way of climbing stairs; the necessity of play, etc.

In the fourth year pupils should be taught the need of pure air, ventilation, rest and sleep; the care of eyes, ears, nails and hair. They should also be taught the use, care and protection of bone, ligament, muscle, skin, special senses, organs of the body, and respiration; the importance of right bone and muscle habits in childhood; the facts concerning curvature of spine and muscular weakness, etc.

In the fifth year pupils should be taught what to do in case of accidents and in sudden emergencies; the first treatment of cuts, contusions, bruises, burns, scalds, fainting fits, drowning, choking, poisoning and sprains; the danger from illuminating and sewage gas and treatment, etc.

In the sixth year attention should be given to matters of civic hygiene; to the City water supply; to the sewage system and the distribution of waste by cities; to the danger of defective plumbing; to the Fire Department, its organization and use; to the need of clean streets; to the work and duties of the Street Cleaning Department; to the nature of contagious diseases; the treatment of epidemics and the law bearing upon the subject; the value of hospitals, dispensaries and ambulances; the work and duties of the Board of Health, etc.

In the seventh year pupils should be taught the important facts concerning the human body; the structure and function of the skin; the oil glands and their object;

the perspiratory glands and their object; the structure and function of the muscles; the relation of muscle to food; the structure, function and shape of bone; the chief organs of digestion; the anatomy of the lungs and the mechanism of breathing; the general structure of the heart, lungs, blood vessels and lymphatics; the development of muscular strength; the laws of growth as to form and function, etc.

In the eighth year pupils should be taught the important facts concerning the nervous system; the development of the nervous system by use; the need of proper food; the function and protection of the brain; the structure, function and protection of the spinal cord; the structure of the nerves and their two general classes; the function of each; the location, function and distribution of the sympathetic system; the uses of the special senses, their care and cultivation. Pupils should also be taught the effect of habits; how habits are formed; how bad habits may be controlled or broken; the importance of cultivating good, hygienic, mental and moral habits; the importance of good bone and muscle habits during the growing period; the relation of health to happiness, to efficiency and to mental clearness, etc.

It is to be noted that this is called a course in hygiene. It is not made clear how it is possible to teach hygiene apart from physiology.

A FOOLISH DEMAND.

In the course of study in physiology and hygiene the amount of work demanded is greatly in excess of the time allowed, and the subject matter for the upper grades is too comprehensive and difficult. All there is of the growing science of physiology has been dumped wholesale into this course for the elementary schools. Even the function of the sympathetic nervous system, about which the masters do not pretend to speak with authority, is tossed off lightly to young children. The course might be a suitable one for medical students, trained nurses and other people who are specializing along this line, but to be crammed into the heads of boys and girls under fourteen years of age it is simply monstrous.

According to the official circular issued by the Superintendent of Schools the time allowed to physiology and hygiene in the fifth, sixth, seventh and eighth years is fifteen minutes per week. A term contains twenty weeks, and, making allowances for holidays and other interruptions, not more than eighteen lessons would be given during this time. This means eighteen times fifteen minutes, or four and one-half hours per term for this subject. Notwithstanding this fact the following is a sample of the work demanded of a grammar grade class:

SYLLABUS FOR GRADE 7A.

"HYGIENE—Pupils should be taught the important facts concerning the human body; the structure and function of the skin; the oil glands and their object; the perspiratory glands and their object; the flexibility and thickness of the skin;

the blood-vessels and nerves in the true skin; the value of cleanliness and bathing (warm and cold); the effects of various kinds of baths; the dangers of cheap soaps; the structure and function of the muscles; the relation of muscle to food; the structure, function and shape of bone; the chief bones; the necessity of food and exercise for the growth of bone; the effect of pressure; the cause of round shoulders and of curved spine; the importance of having desks and seats adjusted to the person; the chief organs of digestion; importance of mastication; effect of rapid eating; digestion in the stomach; action of juices on different kinds of food; movements of the stomach wall; the effect of much cold liquid with food; the effect of fatigue, either mental or physical, on digestion; the danger from overeating; digestion in the small intestines; the change of food from solid to liquid during digestion; the absorption of food; the quantity and quality of food necessary; the effect of pleasant talk and laughter upon digestion. Effects of alcohol and narcotics."

All this is to be taught to boys and girls of twelve and thirteen years of age in four and one-half hours! The Director of Physical Training, who originated the course, said, in answer to my critical questions: "It is an ideal toward which the teachers work." If this be true, in justice to conscientious class teachers who take the course seriously and struggle to meet its demands, it should be labeled "Merely an Ideal," and not promulgated as a course of study, but the Director of Physical Training is evidently not aware that section 1086 of the Revised Charter expressly states that the syllabus provided by the Board of Superintendents shall be regarded as the minimum amount of work required in that branch.

As to the effects of alcohol and other narcotics, it is well understood that much of the so-called scientific temperance instruction in the schools is a fit subject for satire. Under the indorsement of the "National and International Superintendent of the Department of Scientific Instruction of the Women's Christian Temperance Union" vivid descriptions of delirium tremens and similar horrors are selected as suitable reading matter for little boys and girls.

Although the law makes unreasonable demands concerning the teaching of the effects of alcohol and other narcotics, it does not prohibit the use of good judgment in the teaching of physiology and hygiene as a whole.

TIME FOR PHYSICAL TRAINING.

In the official time schedule on the basis of 1,500 minutes per week the time allowed for physical training, exclusive of the two-minute drill, is 200 minutes per

week for the first year, 165 minutes for the second, third and fourth years, and 90 minutes for all grades past the fourth year. This time is apportioned as follows:

	Gymnastics Daily.	Recess Daily.	Hygiene Weekly.	Weekly Total.
First year	18 min.	20 min.	10 min.	200 min.
Second, third and fourth years	15 min.	15 min.	15 min.	165 min.
Fifth, sixth, seventh and eighth years	15 min.	.....	15 min.	90 min.

In schools using apparatus the time allotted to gymnastics in the fifth, sixth, seventh and eighth years is combined into one or two longer periods and the exercises taken in the gymnasium.

When it is considered that recesses are included the time allotted to physical training does not appear excessive. It has always been customary in elementary schools to allow time for recess during each session.

SUPERVISION.

Dr. Luther Halsey Gulick has associated with him as Directors of Physical Training M. Augusta Requa, Jessie H. Bancroft and W. J. Ballard. It appears that Miss Requa was appointed September 14, 1896, and prior to the election of Dr. Gulick was Supervisor of the force of instructors in physical training. Last year Miss Requa was superseded by Dr. Gulick, and she has since been contesting the effort to depose her from her position as Directing Supervisor. At present she is not working in the schools, although she continues to draw her salary.

In addition to the four directors of physical training, the civil list shows twenty-two special teachers of this subject who are assigned to the various school districts. There are also at present three substitute special teachers in the Borough of Queens at a per diem allowance.

Cost of Supervision.

Name.	Position.	Appointed.	Salary.
Luther Halsey Gulick.....	Director of Physical Training, New York City	Feb., 1903	\$4,000 00
M. Augusta Requa.....	Director of Physical Training, Boroughs of Manhattan and The Bronx.....	Sept. 14, 1896	2,500 00
Jessie H. Bancroft.....	Director of Physical Training, Borough of Brooklyn	1893	2,500 00
W. J. Ballard.....	Director of Physical Training, Borough of Queens	June 30, 1898	3,000 00

Name.	Position.	Appointed.	Salary.
<i>Manhattan.</i>			
Dr. Andrew L. Barrett.....	Special Teacher.....	Mar. 1, 1891	\$1,600 00
Dr. Elias G. Brown.....	Special Teacher.....	Apr. 1, 1903	1,300 00
Christina J. Carret.....	Special Teacher.....	Sept. 17, 1903	1,000 00
Elizabeth M. Colony.....	Special Teacher.....	Sept. 14, 1903	1,100 00
Stella Farlamb	Special Teacher.....	Apr. 1, 1903	1,200 00
Montague Gammon	Special Teacher.....	Sept. 14, 1903	1,500 00
Annie S. Lane.....	Special Teacher.....	Apr. 1, 1903	1,000 00
Minnie A. Jacobs.....	Special Teacher.....	Nov. 2, 1903	1,000 00
Eldora K. Richardson.....	Special Teacher.....	Sept. 14, 1903	1,000 00
Carrie L. Scales.....	Special Teacher.....	Apr. 1, 1903	1,000 00
Cornelia F. White.....	Special Teacher.....	Sept. 14, 1903	1,200 00
Caroline M. Wollaston.....	Special Teacher.....	Sept. 14, 1903	1,000 00
<i>The Bronx.</i>			
Bessie K. Marsh.....	Special Teacher.....	Dec. 1, 1903	1,000 00
Evelyn Butler	Special Teacher.....	Dec. 1, 1903	1,000 00
<i>Brooklyn.</i>			
Katherine B. Campbell.....	Special Teacher.....	Dec., 1901	1,100 00
Edith Hodgson	Special Teacher.....	Sept., 1897	1,200 00
Myrtle S. Hutchins.....	Special Teacher.....	Sept. 14, 1903	1,000 00
Kathryn A. McMahon.....	Special Teacher.....	Mar. 1, 1897	1,200 00
Adah Membery	Special Teacher.....	Sept. 11, 1899	1,200 00
Mary A. Reed.....	Special Teacher.....	Dec., 1901	1,200 00
Elma L. Warner.....	Special Teacher.....	Sept. 9, 1901	1,200 00
<i>Richmond.</i>			
Nils Bergquist	Special Teacher.....	Sept., 1897	1,600 00
Total.....			\$37,600 00

To this should be added the per diem allowance of the substitute teachers in the Borough of Queens.

As will appear from the dates of appointment in the above table, a Director General and fourteen additional special teachers were appointed in 1903, and the cost of supervising the instruction in physical training was thus increased from \$18,300 to \$37,600 per year.

DUTY OF SPECIAL TEACHERS.

According to General Circular No. 1 for the current school year, issued by the Board of Superintendents, the following directions are given with reference to the duties of special teachers of physical training:

Special teachers of physical training shall visit schools in accordance with instructions from the district superintendents. These visits may be to every class in a school or to a few classes for special instruction or assistance. In so far as practicable, each class shall be visited at least once each term for observation of the current lesson of the regular daily work, and for the purpose of rendering assistance to the teachers. In making such visits the special teacher, upon entering the classroom, shall observe attentively the lesson in physical training given by the class teacher and shall afterwards make such notes upon it as shall enable her to report intelligently upon the character of the work and to judge of its comparative condition at successive visits. The special teacher should at times herself teach the class. This teaching of the special teacher is to assist the class teacher in getting the desired results; to illustrate methods of teaching; to present new exercises; to give the class the stimulus of a new teacher; to correct errors; to judge more fully of the strength or development of the class in particular ways.

TEACHERS' MEETINGS.

When the interest of the work demands it, the special teacher may arrange for conferences with the teachers of a school after school hours. In addition to such conferences regular grade meetings are held at stated times for all teachers using free-hand gymnastics. According to the official schedule issued by the Superintendent of Schools, grade meetings for teachers of elementary schools are held monthly, five meetings for teachers of each grade having been called for the present term. Such meetings begin at 3.45 o'clock.

In order to judge of this feature of the work some of the grade meetings were attended. Usually about 50 per cent. of the teachers come in late. The meeting is conducted by the special teacher of physical training in the district in which it is held, and the instruction given consists in the presentation of new lessons for the two classes to which the teachers belong, together with general directions concerning the work in these grades. The teachers are tired after a day's work and impatient to get home. One section goes through its exercises in a listless and slovenly manner, while the other section laughs and chats in such a way as to prevent any profitable work being done. The opinion prevails among teachers that the benefits derived from these grade meetings do not compensate for the effort made to attend them.

TOO MANY SPECIAL TEACHERS.

Special teachers are the subject of widespread criticism. No other feature of the public school system is so universally condemned. Almost everybody except the Board of Education seems to agree that there is too much supervision in the schools, and

even that body is coming to consciousness concerning the matter. Although no public action has yet been taken, members of the Board are considering ways and means of reducing the corps of special teachers.

Prominent representatives of the local school boards assert with emphasis that money is wasted for unnecessary supervision in the districts which they represent. They believe the whole system to be top-heavy and recommend that the Board of Associate Superintendents be abolished and the corps of special teachers reduced to a minimum. They claim that the district superintendents and the principals, together with the directors of special branches, should be able to supervise the schools.

Principals claim that the schools are overrun with special teachers. They are praying that some one will enforce economy in this direction and so free them of the incubus of excessive supervision. They say that a good place to begin curtailment is with the staff of special teachers of physical training, as the work in this subject is not difficult and principals are, for the most part, fully competent to be held responsible for its direction.

Teachers claim that the special teachers of physical culture are not helpful in any large degree. In most instances they are simply "specialists" with little knowledge of school work as a whole, and no actual experience in class instruction. The results achieved, when they give lessons in the schools, are often inferior to those gained by the regular teacher. Instead of being a stimulus and a help, the visit of the special teacher is regarded as an interruption and even a hindrance. The regular teacher claims that she does the actual work and is held responsible for its results. She also claims that she can do the work effectively without the interference of a special teacher. This is undoubtedly true of a competent teacher who is familiar with gymnastics and who is able to utilize the suggestions of the principal and of the director of physical training.

CONCLUSION.

There is no doubt that the elementary schools of the City are suffering from excessive supervision and a curriculum which is overloaded. These two things make the school system unnecessarily expensive.

The course of study as a whole needs to be trimmed with a relentless hand. For the sake of the boys and girls its superfluous decorations should be dispensed with. Under the present system children are being forced in their growth and this inevitably injures their health and weakens their mental structure. Instead of elaborating fancy systems of physical culture as a means to health, the Department of Education should free the children of the City from the excessive demands of a course of study which keeps them in a constant state of nervous anxiety and interferes with digestion and sleep by necessitating long hours of application out of school.

Physical training should have a place in the curriculum of the elementary school, but the instruction in this subject should be held down to simple exercises, and not allowed to run out into special training in athletics. It is not the business of the elementary school to train artists, musicians, or athletes. The work in physical culture in the primary department should not go beyond what the average teacher can master, and, under the departmental system so highly approved by superintendents and principals, it is entirely feasible to have one regular teacher in each grammar school who is skilled in physical training. This teacher might be called upon to render any special assistance needed by other teachers in the building.

As to the supervision of physical training, the Department of Education is now acting upon the assumption that all teachers need supervision in this line of work, whereas there are whole buildings in which not a single teacher is in need of such assistance. The system is to be uniformly spread all over the City. Every one of the ten thousand teachers in the elementary schools is to be thoroughly supervised whether she needs it or not. The corps of physical training supervisors was more than doubled last year, the cost of supervision being increased from \$18,300 to \$37,600, and the end is not yet.

One young man teacher, who won recognition as an athlete while in college, told me, with a smile, how a young woman graduate from a Fifty-ninth street physical culture school visits his class every two weeks to instruct him how to give simple gymnastics to a class of small boys. A woman principal of long experience in a large primary department said: "I am entirely competent to look after the gymnastics in my building, and have no more use for a special teacher of physical training than a cart has for a fifth wheel." The work in this school is excellent, but still the special teacher continues to give it the allotted quota of time. Another principal who has the supervision of over forty teachers, said: "All the teachers in my building do excellent work in physical training. I have no more need of a special teacher in this subject than in arithmetic, in fact not so much." In this City a principal is relieved of clerical duties in order that he may have more time for supervision, and this should do away with the necessity for so many special teachers.

Teachers to whom the work in gymnastics is new, or who are incompetent, should be singled out and given special assistance, and it is doubtless necessary to have a few special teachers for this work, but there is no universal need for special teachers of physical training in the elementary schools. Too much supervision is demoralizing. It annoys and discourages teachers of ability, and prevents the highest educational results. The mania for supervision is running to extremes. Enforced economy in this direction would have a general beneficial effect upon the school system of the City.

Respectfully,

(Signed) (Mrs.) MATHILDE COFFIN FORD.

EXHIBIT "A."

SHOWING LESSON I., GRADE A, FOR EACH YEAR OF THE COURSE IN FREE-HAND GYMNASTICS
FOR THE ELEMENTARY SCHOOLS.

First Year.

Class—stand!

Take distance!

Position!

1. Stretching.
2. Drill on direction.
3. Marching.

Second Year.

Class—stand!

Take distance!

Position!

1. Stretching.
2. Marching.

Hands on hips—Place!

3. Arm stretching sideways, right—One! 8—8—8.

Position!

4. Running in place—Start!

Hands on hips—Place!

5. Trunk bending sideways, right—One! 8—8.

Third Year.

Class—stand!

Take distance!

Position!

1. Stretching.
2. Marching.

Hands on hips—Place!

3. Arm stretching sideways, forward, sideways and to place, right—One! 8—8—8.

Position!

Hands on hips—Place!

4. Running in place—Start!
5. Trunk bending sideways, right—One! 8—8.

Fourth Year.

Class—stand!

Take distance!

Position!

1. Stretching.
2. Marching.

Arms folded behind—Place!

3. Breathing—Begin! Four times.

Hands on hips—Place!

4. Arm stretching sideways, right—One! 8—8—8.
5. Raising foot forward, right—One! 8—8.
6. Raising knee forward, right—One! 8—8.

Position!

7. Running in place, feet backward—Start!

Hands on hips—Place!

8. Trunk bending sideways, right—One! 8—8.

Fifth Year.

Class—stand!

Take distance!

1. Stretching.
2. Marching.

Arms folded behind—Place!

3. Breathing—Begin! Four times.

Hands on hips—Place!

4. Arm twisting, right—One! 8—8—8.
5. Raising knees forward alternately, right—One! 16.

Position!

6. Jumping, feet sideways alternately, right—Start! 10 to 20.

Hands on hips—Place!

7. Trunk bending sideways, right—One! 8—8. Repeat.

Sixth Year.

Class—stand!

Take distance!

1. Stretching.
2. Marching.

Arms folded behind—Place!

3. Breathing—Begin! Four times.

Position!

4. Arm raising sideways, right—One! 8—8—8.

Hands on hips—Place!

5. Charging sideways, right—One! 8—8.
6. Head bending backward—One! 8.

For rowing—Place!

7. Rowing—One! 8.

Class—Stand!

Hands on hips—Place!

8. (a) Alternate trunk bending and point step sideways, right—One! 8—8.
- (b) Together! 16.

Seventh Year.

Class—stand!

Take distance!

Position.

1. Stretching.
2. Marching.

Arms folded behind—Place!

3. Breathing—Begin! Four times.

Arms bent at shoulder level—Place.

4. Arm stretching sideways, right—One! 8—8—8.

Hands on hips—Place!

5. Charging forward, right—One! 8—8.

Position.

6. Running in place, feet backward—Start!

Hands on hips—Place!

7. Trunk bending sideways, right—One! 16—16.
8. Trunk bending forward, head backward—One! 8.

Eighth Year.

Class—stand!

Take distance!

Position.

1. Stretching.
2. Marching. Arms folded behind—Place!
3. Breathing—Begin! Position.
4. Hands back of head, right—One! 8—8—8.

Hands on hips—Place!

5. Charging forward, right—One! 8—8.
6. Rising on toes and bending knees—One! Eight times.
7. Trunk bending sideways, right—One! 16—16.
8. Trunk bending forward, head backward—One! 8.

REPORT No. 8.

Music in the Elementary Schools—An Exceedingly Complex Course of Study— Analysis of the Work Demanded—Costly Supervision.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions to investigate the teaching of music in the elementary schools, from the viewpoint of possible economies, I beg to submit the following report. Inasmuch as this is the last of a series of reports on special studies, it naturally concludes with a resume of the whole subject of special teachers in the elementary schools.

Instruction in vocal music is a part of the course of study laid down by the Board of Education for the elementary schools of the City. For more than forty years this subject has been taught in some grades of these schools, and for twenty years at least it has been a part of the regular course prescribed for all classes. Although music is not, as yet, obligatory under the law, it has gradually come to be included in the curriculum of public schools in most of the cities and towns of the State. Free instruction in this branch is authorized at the discretion of the Board of Education, by the statute which provides that

“The boards of education in each city, and in each union free school district incorporated under the laws of this State, may cause free instruction to be given in vocal music in the schools under their charge.”

When vocal music was first introduced into the public schools of the City, special teachers were employed to visit the schools and give all the lessons, but gradually the regular teachers became competent to give such instruction, and the special teacher has now become only a supervisor who visits the school about once in two weeks to assist the regular teacher in the work. Eventually, of course, the special teacher will be dispensed with and music will take its place among the regular branches of instruction which the class teacher is required to handle without extra assistance. At the present time the need is to differentiate between teachers who need special assistance and those who do not. The fact as to the ability of every regular class teacher to give instruction in music should be determined, and special assistance should be restricted to teachers who actually need it. The average teacher is constantly becoming more and more proficient in vocal music, as well as in drawing, physical training and other so-called special subjects, and the time has come when so much supervision is not necessary.

PURPOSE OF MUSIC IN THE ELEMENTARY SCHOOLS.

There is no occasion to enlarge upon the elevating and refining influence of music, nor is it necessary to discuss the fitness of making it a branch of popular instruction. It is now everywhere conceded that vocal music is an instrument of great educative value, which should have a place in every system of primary education. Not only such children as have special talent in this direction, but all children should be brought under its influence. The purpose of musical instruction in the elementary school is to brighten the school atmosphere, to promote the happiness of the children, to furnish rest and refreshment, and thereby to vitalize all the other work. It is to refine the taste, to stimulate the imagination and to inspire good conduct and right habits of life. It is to cultivate the voice, to train the eye and the ear, and to develop an appreciation for all that is good in the realm of song.

All this is admitted, but the practical problem still remains of how best to adapt musical instruction to the needs of the elementary schools. Vocal music should be taught, but the instruction in this branch should not encroach upon other subjects which are even more important, and the course of study should not go beyond the elementary work suitable to such schools. Children should be taught to read simple music at sight, but the difficult technicalities involved in the science of music should not be attempted here. The art and the delight of song are about all that should have place in an elementary school.

THE COURSE OF STUDY.

A specialist magnifies the importance of his specialty and gives it too large a place relative to other subjects. He also constantly underestimates the amount of effort which an ordinary person who is not especially skilled in his line must put forth to accomplish given results. The courses of study in the so-called special subjects are made out for the most part by specialists, and this explains the fact that, as a whole, they cover too much ground for an elementary course and require more work than the average teacher can possibly do in the time allotted. As there are six different lines of special work in the elementary schools, and the course of study in each is overloaded, it will be seen that there is just cause for the far-reaching complaint that the common branches are neglected. To start with, the official allowance of time for the special studies is very generous and, in addition to this, the average teacher usually runs over time in such lessons, being obliged to do so to meet the demands of the special teacher, who is constantly at her heels demanding more work than can possibly be done.

The course of study in music is too heavy. The work outlined for the several grades is too difficult, and there is too much of it. The science of music should not be attempted in the elementary schools. There is no time for it nor any reason why it should be taught in these schools. The opinion is fairly universal among principals and teachers that the course in this subject should be greatly curtailed. Several years ago the Teachers' Association of Manhattan and The Bronx, after a careful considera-

tion of the course of study for the elementary schools, with a view to possible changes or improvements under its contemplated revision, submitted a report which contained the following striking and very significant conclusion:

"We believe our present methods in music are thoroughly pedagogical, and that music as a school study is justified by its culture value. It exerts a subtle moral influence which has a decided effect upon school discipline.

"There is, however, a general complaint that our course demands entirely too much of children and teachers. The course is regarded as particularly burdensome, and should be reduced by 50 per cent."

Notwithstanding the deep feeling among representative principals and teachers which prompted such an unqualified protest against the amount of work required in this branch, the new course of study adopted in June, 1903, greatly increased the requirements in the several classes in the elementary schools. A large amount of purely technical work was added to the courses for the upper grades, some of which is given below:

GRADE 7B.

Course of Study.

Study and writing of tonic, dominant and subdominant triads in major keys, sight singing of songs in unison, and in two-voice parts and three-voice parts with words.

Syllabus.

The chords occurring most frequently in three-part harmony should be recognized as such, and named by the pupils. The principal harmonies of a key, based upon the first tone or tonic, the fifth tone or dominant, and the fourth tone (the fifth below the key-note), or subdominant, should be taught.

The three elements of which these harmonies are composed may be placed in any position relative to each other. So long as the elements remain unchanged the harmony remains the tonic triad. The elements may be doubled. The pupils should be directed to find the triads in the part songs they sing, and should write the three principal triads, as they are called, of the key of each song as it is taken up.

GRADE 8A.

Course of Study.

Study and writing of tonic, dominant and subdominant triads in minor keys, and of the diminished triad on the leading tone in major and minor, with its resolution; sight singing continued; special attention to changed voices.

Syllabus.

The principal triads of the minor key found on 1, the tonic; 5, the dominant, and 4, the subdominant, should be taught. Attention should be called to the tonic or key-

note of the minor scale, called 6, not 1; the dominant, 3, and the subdominant, 2. With these degrees as the basis it will be seen that the tonic triad in minor is 6—8—3; the subdominant, 2—4—6, and the dominant, 3—5—7.

The triad based upon the seventh degree of the major or minor scale and containing the elements 7—2—4, requires a progression to another chord, the tonic triad. The natural tendency of 7 (sometimes called the leading tone of the scale) is to progress to 8; the tendency of 4 is to progress to 3, and so a satisfactory progression, or resolution, to the tonic triad is secured.

The pupils of this grade are likely to have developed the voice range and quality which makes it desirable to place them permanently into the soprano, alto or bass parts. In the case of boys whose voices are in process of changing great care should be taken not to permit their voices to be strained. Such boys should be permitted to sing very gently and within a limited range suited to their ability.

GRADE 8B.

Course of Study.

Study and writing of triads on the second, third and sixth degrees, and of the dominant chord of the seventh with its resolution; choral singing.

Syllabus.

Triads on the second, third and sixth degree:

In major, 2—4—6; 3—5—7; 6—8—3.

In minor, 7—2—4; 1—3—5; 4—6—8.

It is only necessary that pupils in this grade shall recognize those chords when they occur in the songs, and name them correctly.

Another chord which should be known to the pupils on account of the frequency of its occurrence and its importance to the key is based on the dominant, and has four elements, namely, 5—7—2—4. With the final tonic chord it usually forms the closing cadence of a musical composition.

TIME GIVEN TO MUSIC.

In the lower grades song singing for rest and recreation occurs frequently during the school session, a few minutes being given to such work between the other lessons. In all schools fifteen minutes per day are devoted to opening exercises, which are held in the assembly-room and consist mostly of singing. In addition to this one hour per week is set aside for formal instruction in vocal music in all classes in the elementary schools. In the lower grades it is customary to give a twelve-minute lesson each day, but in the higher grades the time is usually divided into two or three longer periods. The teachers claim that it is absolutely impossible to do the work laid down in the

present course of study in the allotted time. They say that, in order to accomplish the required results, it is necessary to devote much more time than one hour per week to this subject.

This is true not only of music, but also of manual training and other special studies. As the special subjects are more closely supervised than the regular branches the natural tendency is to insure results in these studies first. This can only be done at the expense of the common branches. By the time the class teacher does all that is required by the music supervisor, the drawing supervisor, the physical training supervisor, the supervisor of sewing, the teacher of cooking and the shop teacher there is little time left for reading, spelling and arithmetic. The very method of having special supervisors for certain subjects naturally leads to the neglect of all branches which are not so supervised.

SUPERVISION.

The largest item of expense in connection with the teaching of music in the elementary schools is the cost of providing special supervisors for this branch. The instruction in the classes is given by the regular teachers, but it is deemed necessary to have a large corps of special teachers to assist and direct the regular teachers in this work.

There are three directors in charge of the teaching of music in the several boroughs: Mr. Frank Damrosch, Director of Music in Manhattan and The Bronx; Mr. Albert S. Caswell, Director of Music in the Borough of Brooklyn, and Mr. Frank R. Rix, Director of Music in Queens and Richmond.

These directors are appointed for a term of six years by the Board of Education, upon the nomination of the Board of Superintendents, and are subject to the supervision and direction of the City Superintendent. They act as advisors to the Board of Superintendents, to the district superintendents, and to principals on all matters pertaining to music, and instruct special teachers and class teachers in the teaching of this branch. To be eligible for election as a director of music one must be a graduate of a college or university recognized by the University of the State of New York, a graduate from a course of professional training in music, of at least two years, and a teacher of music with at least three years of successful experience.

There are fifty-two special teachers of music, 26 for Manhattan and The Bronx, 15 for Brooklyn, 7 for Queens and 4 for Richmond. These special teachers are assigned to the several school districts by the Board of Superintendents, with the advice of the director of music. The district superintendent assigns them to their duties in the schools of the several districts to which they are appointed. The rule is to have one special teacher for each school district, but a larger number is provided in the boroughs of Queens and Richmond. To be eligible for license as a special teacher of music, the applicant must have graduated from a satisfactory high school or institution

of equal or higher rank, or must have had an equivalent academic training. He must also have completed a satisfactory course of professional training of at least two years in music, and must have had three years' experience in teaching this branch.

Male directors of music receive \$3,500 for the first year of service and an annual increase of \$100 until the maximum of \$4,000 is reached, which is the salary for the sixth and succeeding years.

Special teachers of music, if women, receive \$1,000 for the first year of service and an annual increase of \$100 until the maximum of \$1,400 is reached. Men receive \$1,200 for the first year and an annual increase of \$100 until the maximum of \$1,600 is reached.

The following is the list of directors and special teachers of music in the elementary schools, as given in the Civil List for 1904:

COST OF SUPERVISION.

DIRECTORS.

Frank Damrosch, Director of Music.....	May 5, 1897	\$4,000 00
Albert S. Caswell, Director of Music, Borough of Brooklyn	Sept. 1, 1876	4,000 00
Frank R. Rix, Director of Music, boroughs of Queens and Richmond	Sept. 2, 1898	4,000 00

Manhattan and The Bronx.

SPECIAL TEACHERS.

Thomas E. Hazell	Jan. 1, 1885	1,600 00
Walton N. Ellis	Feb., 1880	1,600 00
Ray Whitlock	Nov. 3, 1897	1,400 00
Clarence T. Steele	Nov. 8, 1888	1,600 00
Elizabeth E. Blair	Nov. 3, 1897	1,400 00
Jennie Purves	Nov. 3, 1897	1,400 00
Minnie M. Stone	Nov. 3, 1897	1,400 00
Katherine Kennedy	Jan. 5, 1898	1,400 00
Varnetta E. Coleman	Jan. 5, 1898	1,400 00
Edward G. Marquard	Jan. 5, 1898	1,600 00
Mary S. Doty	Oct. 5, 1898	1,400 00
Mary C. Kelly	Oct. 3, 1879	1,400 00
Lizzie B. Barker	1876	1,000 00
Charles H. Hauschel	Dec. 1872	1,300 00
Edith Guy	Jan. 10, 1885	1,400 00
Richard M. Robinson	Sept. 30, 1876	1,300 00
Hortense Camp Lee	Oct. 26, 1898	1,400 00
Lena H. Bland	Oct. 9, 1899	1,300 00

Bertha O'Reilly	Nov. 16, 1897	\$1,400 00
Margherita B. Piretti	Feb. 7, 1900	1,300 00
M. Nellie Mullen	Feb. 7, 1900	1,200 00
Minnie L. Pettinger	Nov. 15, 1901	1,100 00
Mary C. Mulligan	Feb. 7, 1900	1,300 00
Frank Downey	Feb. 7, 1900	1,500 00
Nellie Dee	Feb. 3, 1903	1,000 00
Grace E. Stevens	Oct. 1, 1903	1,000 00

Brooklyn.

Linden L. Parr	May 1, 1871	2,160 00
Alice M. Judge	Feb. 1, 1883	1,400 00
Charlotte F. Furey	Dec. 1, 1886	1,400 00
Wilhelm Mattfeld	May 1, 1894	1,600 00
Frank R. Auerhahn	May 1, 1894	1,600 00
Edith L. Hart	Feb. 15, 1897	1,400 00
Maria A. Simmons	Feb. 15, 1897	1,400 00
Frederic M. Davidson	Oct. 15, 1898	1,600 00
James H. Downs	Apr. 15, 1899	1,400 00
Frederick J. Bryan	Feb. 7, 1900	1,500 00
Eugene C. Morris	Feb. 7, 1900	1,500 00
Jules Serge Joannes	Feb. 7, 1900	1,500 00
Paul Martin, Jr.	Oct. 1, 1900	1,500 00
Ester A. Liscomb	Jan. 1, 1887	1,400 00
Edward E. Hand	Jan. 16, 1883	2,160 00

Queens.

Mary J. Maltby	Feb. 1, 1901	1,200 00
Emily Ball	June 30, 1898	1,400 00
Margaret Bowman	Oct. 14, 1898	1,400 00
Georgia Swift	June 30, 1898	1,400 00
Anna Perrin	June 30, 1898	1,300 00
Josephine Walsh	June 30, 1898	1,400 00
Emily B. Walker	Dec. 1, 1900	1,200 00

Richmond.

Clara L. Bartholomew	Jan. 9, 1901	1,400 00
Minnie D. Kuhn	Jan. 7, 1901	1,260 00
Jennie C. Heath	Jan. 13, 1902	1,100 00
Lillian R. Littlefield	Nov. 9, 1903	1,000 00

Total		\$84,680 00
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UNNECESSARY SUPERVISION.

As there are 10,585 (1903) teachers in the elementary schools and 52 special teachers of music, it will appear that a special teacher has, on an average, about 200 class teachers to look after, which is about the right number. There are twenty days to the school month, and she is expected to visit each teacher once or twice during the month, a visit being usually about ten minutes long. But there are more special teachers than are needed, because all of the 10,585 teachers should not be specially supervised, the regular supervision of the principal and other supervisory officers being quite enough.

An investigation of the actual conditions in the schools shows that in many instances as large a proportion as one-half of the teachers in a school are able to teach music without special assistance as the course of study now is, and if it were simplified, as it should be, many more would be able to do so. Some schools should be left entirely to the principal in charge, superintended by the director of music. This is now done in Public School 116 (Manhattan) with excellent results. Doubtless a large number of principals are quite competent to supervise the music, or would become so if they were called upon to assume that responsibility.

Special supervision, at best, is a mere makeshift, and instruction in music or any other subject can never produce the highest results until it becomes a part of the regular work, taught by the regular teacher, and supervised in the regular way. In the very nature of the case, the work done by special teachers is and must continue to be unsatisfactory. As a rule a special teacher is without that working knowledge of the other subjects taught in the schools which would enable her to make her instruction an integral part of the whole, and she is also without that practical experience as a class-room teacher which would enable her to adapt her instruction to the actual needs of the children. Consequently, the results which she obtains are usually inferior to those obtained by a regular teacher.

ONE RESULT OF THIS INVESTIGATION.

As a result of the investigation made under your direction, the educational authorities of the City have come to acknowledge that there is too much supervision in the schools and are already devising plans for reducing the supervisory force.

The Board of Superintendents is fully aware that the corps of special teachers as a whole must be reduced, but they do not seem to know how to accomplish such a reduction without detriment to the schools. They have failed to grasp the problem of special supervision in its historical development and logical outcome and so are unable to see what needs to be done at the present juncture. They might learn from the example of Boston, which has always led in the matter of musical instruction in the elementary schools, as well as in many other lines of public school work. The Superintendent of Boston has made a profound study of the growth and development of its

public school system, and is already acting upon the light thus obtained. He recognizes that special teachers of music, or any other branch, are a temporary necessity which should be kept within the smallest possible bounds and rendered superfluous as soon as possible. In Boston teachers are classified on the basis of their ability to teach music and are excluded from special supervision when they no longer need such assistance.

NEW YORK SHOULD IMITATE BOSTON.

The Boston plan, as described by Superintendent Edwin P. Seaver in his last report, is as follows:

"The individual grade teachers differ widely in the degree of their need of such help as the visiting music teacher can give; and they differ, too, in the degree to which they are conscious of such need. Last June it was thought important that the greater force of music supervision should be expended where it was most needed. Accordingly, a classification of the grade teachers was made, on the basis of existing information as to their ability to teach singing in the several rooms as follows:

"Class A—Teachers who are expected to give all the instruction in music in their several rooms and who will be visited only occasionally for the purpose of inspection.

"Class B—Teachers who will teach music under constant supervision and will be regularly visited for the purpose of supervision.

"Class C—Teachers who need the help which the visiting music teachers give and who, moreover, will be expected to take the special instruction to be provided for them out of school hours.

"Each teacher was informed of her assignment to one or another of these classes and was also told that her assignment would be changed from time to time for satisfactory reasons. The suggestion was that the road to Class A would be kept open to the ambitious teacher who wished to arise from Class B or Class C. There are teachers who wish to be relieved of constant supervision. Very well, let them prove their ability to teach a rule and they will be assigned to Class A."

UNSCIENTIFIC AND VERY EXTRAVAGANT.

The wholesale method of supervision which now obtains in New York City is not only unscientific but it is ineffective and extravagant. Science always means economy. This is true in education as in other lines of business. The reform which has just been started in Boston will serve as a landmark in educational history, because it marks a new point of departure in the logical and inevitable development of special supervision in the elementary schools. To classify teachers on the basis of ability, to differentiate between strength and weakness in the individual, is the only scientific solution of this perplexing problem, and conditions are already compelling the adoption of such a method in the metropolis.

With the growth of the City its school system has taken on such stupendous proportions that it is no longer either practicable or expedient to continue the present system of wholesale supervision. The corps of teachers in the elementary schools now exceeds ten thousand, and is increasing with amazing rapidity. The plan of universal

supervision has broken down of its own weight and it has become imperative to introduce a reform, not only as a means of saving money, but to relieve the class teachers from the incubus of excessive supervision, which now rests so heavily upon them. With the extension of the school system its complexity has increased and supervisory officers have been piled up, one above another, until a class teacher is now directly supervised by a principal, an assistant principal, a special teacher of music, a special teacher of drawing, a special teacher of sewing, and a special teacher of physical training, and is indirectly supervised by a director of music, a director of drawing, a director of sewing, a director of physical training, a district superintendent, a division or associate superintendent, and the City Superintendent. Teachers are in rebellion against this burdensome supervision and a hostile public opinion is demanding reform.

LARGE ECONOMY IS POSSIBLE.

The facts disclosed in this investigation prove that large economies are possible in the public schools. If a plan were adopted, not only in music but in all the special branches, whereby special supervision would be restricted to those teachers who actually need such assistance, the present corps of special teachers could be greatly reduced. According to the Civil List for 1904 there are 13 directors and 246 special teachers employed at an annual cost of \$351,030 to supervise music, the several branches of manual training, and physical culture in the elementary schools. They are as follows.

DIRECTORS OF SPECIAL BRANCHES.

Boroughs.	Music.	Drawing and Constructive Work.	Sewing.	Cooking.	Shopwork.	Physical Training.
Manhattan and The						
Bronx	1	1	1	1	..	1
Brooklyn	1	1	1	..	..	1
Queens	1	1	..	..	..	1
	—	—	—	—	—	—
Entire City.....	3	3	2	1	..	4 *

* This includes one General Director for all boroughs.

SPECIAL TEACHERS OF SPECIAL BRANCHES.

Boroughs.	Music.	Drawing and Constructive Work.	Sewing.	Cooking.	Shopwork.	Physical Training.
Manhattan and The Bronx	26	28	36	32	32	14
Brooklyn	15	16	14	..	..	7
Queens	7	8	3	..	..	..
Richmond	4	2	1	..	..	1
Entire City	52	54	54	32	32	22

COST OF SPECIAL SUPERVISION.

Music	\$84,680 00
Drawing and constructive work	80,760 00
Sewing	66,500 00
Cooking	38,200 00
Shopwork	43,290 00
Physical training.....	37,600 00
Total.....	<u>\$351,030 00</u>

THE DEPARTMENT OF EDUCATION COULD SAVE \$150,000 A YEAR.

Both teachers and principals should be classified strictly on the basis of their efficiency in each of these so-called special branches. It is probable that more supervision is needed in music than in any other subject, but there is no doubt that, under the stimulus which a just recognition of ability would give, a large proportion of the class teachers could be excused from such supervision as is given by the special teachers of music. In case the principal is especially skilled in one of the special subjects, his entire school should be designated as one in which assistance of a special teacher in that particular subject is not required. "Excused from supervision" would thus come to be a mark of merit for which all would strive. Such a policy would lift the leaden hand of uniformity which now rests so heavily on teachers of ability, and stimulate the whole corps to more efficient effort.

After music, drawing and constructive work are most in need of supervision, but if the course of study in the subjects were shorn of technicalities and superfluities, it is likely that fifty per cent. of the class teachers could be excused from supervision by special teachers. Under the departmental system of teaching, which has been so widely adopted in the seventh and eighth grades of the grammar schools, it is possible to do away entirely with special teachers in grades in which this system obtains. In departmental work the teacher who has special aptitude and qualifications for teaching a

given subject is assigned to give the instruction in that branch to a number of classes, instead of teaching a number of subjects to one class. In other words, each teacher becomes a specialist in one branch and with a music specialist, a drawing specialist, and a physical culture specialist in a given school, there is no need for special teachers of these subjects. Under the departmental system it is entirely practicable to have a teacher skilled in each of these branches included in the regular corps of every grammar department, and this would do away with the need of special teachers in the grammar schools.

Most of the special teachers of sewing should be dispensed with. If the dress-making and applied design were eliminated from the course of study, and the work confined to plain sewing, the great majority of the class teachers would be fully competent to give the instruction in this subject. The special teachers of cooking cannot be dispensed with, if this subject is to be retained, because, as already stated, a cooking teacher is not a supervisor, but is merely a class teacher who instructs pupils just as other class teachers do. The same is true of shop teachers. In physical training, as already stated in my special report on this subject, there is no occasion whatever for any elaborate system of supervision in the elementary schools. Under the direction of the principal and director of physical training, the average class teacher is abundantly able to give such physical exercises as should be given in the elementary schools.

The facts set out in these five reports on sewing, cooking, drawing and constructive work, physical training, and music, show that great economies are possible in the administration of school affairs. If technical and scientific instruction in the special branches were eliminated from the course of study for the elementary schools, and a restricted system of supervision based upon a proper classification of teachers were adopted, it would be entirely feasible and highly beneficial to make large reductions in the present corps of special teachers whose salaries now aggregate over \$350,000 a year. Such a curtailment of the course of study would also materially reduce the expenditures for special study supplies, which now aggregate over \$150,000 a year. If these reforms were instituted, the Department of Education could save \$150,000 a year on music, manual training, and physical culture in the elementary schools.

Beyond saving \$150,000 a year, the elimination of technical instruction in the special branches and unnecessary supervision by special teachers would go far toward restoring the neglected common branches to their rightful place by reducing to reasonable limits the time and attention given to the special branches. The present gross exaggeration of the place of the special studies is due to the fact that they are comparatively new and are therefore specially supervised. To dispense entirely with special teachers would go a long way toward restoring equilibrium in the curriculum and bringing order out of the present confusion in the schools, but this is not advisable at the moment because a part of the teachers still need extra help in these newer branches and it is therefore necessary to have some special teachers. Eventually, of course, special teachers of music, manual training, and physical training will entirely disappear

and these subjects will become simply regular studies which every teacher must be able to handle.

A special teacher is a device for facilitating the introduction of new subjects into the schools. Special supervision is the temporary scaffolding used in building an extension to the course of study. It should be torn down as soon as the work is completed. In place of grasping this fact and acting upon it, the Department of Education continues to enlarge its elaborate and costly scheme of special supervision, when the time is ripe to begin its destruction. The course of study has been extended. Music, manual training and physical culture are in the schools. Special supervision has been the means of putting them there, but in so far as it has accomplished this purpose it has become an obstruction to further progress. Special studies should be made regular studies and special teachers should be dispensed with as rapidly as possible. Economy and the best interests of the children are at one in making this demand.

Respectfully submitted,

(Signed) (Mrs.) MATHILDE COFFIN FORD.

REPORT No. 9.

Showing the Amount of Property Held by the Board of Education as of date January 9, 1904, Which Had Not Been Improved—Cost of Carrying Charges and Loss of Taxes Resulting Therefrom.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In accordance with your instructions, the following report and attached data relative to properties acquired for school purposes is respectfully submitted. The condition of the various properties included in the detailed statement attached was ascertained through inspection by your representatives on January 8 and 9, 1904, to which date calculations of interest were also made. The loss of taxes is figured on the valuations and at the rates which prevailed in the boroughs for the different years, less an allowance for the cost of condemnation proceedings.

In the Borough of Manhattan there are 20 plots of property, aggregating about 80 lots, or about 175,000 square feet of land. On all of these 20 plots the buildings which originally encumbered them when title was vested in the City are still standing. The City was in physical possession of these properties for periods varying from two months to seventy months. One plot owned for nearly six years cost the City \$326,645.90, and the carrying charges for interest ($3\frac{1}{2}$ per cent.) on the bonds issued to pay for the plot, together with an annual installment of 1 per cent., to provide for the redemption of bonds at maturity, has now amounted to \$85,744.58, exclusive of the loss of taxes to the City, which, up to and including 1903, amounted to \$25,756.80. Another plot has been in the City's possession for fifty-seven months. Six for two years or more; five from ten months to nineteen months, and the balance from two to nine months.

The cost of acquiring these 20 plots in Manhattan was.....	\$1,539,854 34
Interest or carrying cost to January 9, 1904 ($4\frac{1}{2}$ per cent.), paid out of the Budget and included in tax levies.....	162,489 52
Loss of taxes on these 20 plots.....	51,693 28

Total cost to City to January 9, 1904.....	\$1,754,037 14
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All of these properties are absolutely useless for school purposes in the condition in which they have been allowed to remain, no matter for what school purposes they were intended.

In addition to the 20 plots on which buildings are standing, there have been acquired four plots consisting of about 18 vacant lots, containing 45,000 square feet of land. One of these west of Seventh avenue, running through from One Hundred and Forty-seventh to One Hundred and Forty-eighth streets, has a frontage on both streets of 150 feet. It has been in possession of the City since April 25, 1901, over 32 months. It has never been improved and is now used as a recreation ground. No objection is made to this use of the property unless it is determined that increased school capacity has been needed in that neighborhood. In that event the property could have been improved and the same recreation facilities provided on the roof of the building, as is now being successfully done elsewhere.

In the Borough of The Bronx six plots, containing 186,000 square feet, are in possession of the City.

With the exception of a building on one of the sites, these properties are all vacant and available for use for school purposes. Part of one of these plots was acquired nine years ago, and the balance of the same plot four years ago. Of the others, one plot has been held 53 months, one 30 months, and the others, three, four and five months.

The property cost the City.....	\$149,486 20
Carrying charges to January 9, 1904.....	8,973 18
Loss of taxes	3,404 33
	<hr/>
Total cost to the City to January 9, 1904.....	<u>\$161,863 71</u>

The Borough of Queens has six vacant plots available, containing 150,000 square feet. The City has owned one of these plots 4½ years, one for 3 years, 2 others for 2½ years, and one which adjoins a school 1½ years, and the remaining one for 4 months.

These properties cost the City.....	\$35,410 11
Carrying charges to January 9, 1904.....	3,879 82
Loss of taxes.....	1,556 66
	<hr/>
Total cost to the City to January 9, 1904.....	<u>\$40,846 59</u>

In the Borough of Richmond there are two plots, one acquired 8 months, and the other over 2 months ago. Both plots are vacant and available and contain about 61 000 square feet.

They cost the City.....	\$4,750 00
Carrying charges up to January 9, 1904.....	48 00
Loss of taxes	5 73
	<hr/>
Total cost to the City to January 9, 1904.....	<u>\$4,803 73</u>

In the Borough of Brooklyn the City owns seven plots of property, containing about 165,000 square feet of land. From four of these plots the buildings have never been removed, and the other two are vacant lots. They have been owned by the City, one for 48 months, one for 30, one for 15, and the others for 8, 6 and 4 months, respectively. They are all available for school purposes.

The City has paid for these Brooklyn plots.....	\$209 808 20
Carrying charges to January 9, 1904.....	8,360 20
Loss of taxes	2,896 47
Total cost to the City to January 9, 1904.....	<u>\$221,064 87</u>

In addition to these seven plots, five plots have been purchased by the City, two of which are used for light and air, and two for playgrounds. One of the latter, however, is reported as being fenced in and not apparently used. The remaining plot, 150 by 252, is in the rear of Erasmus Hall. There are seven frame buildings on this piece of ground which are used for class-rooms. The Board of Education on December 31, 1903, reported that plans were under way for this plot. It has been owned by the City for 28 months and has been available for improvement all that time.

Your attention is respectfully called to the fact that the present Board of Education was not in control of the schools in the Borough of Brooklyn until February, 1902. The condition reported herein, however, shows the condition as it now exists.

The Board of Education, under date of December 31, 1903, in reply to your request, submitted a list of "Property acquired for school purposes not yet improved." In this list there are mentioned 34 plots, 29 of which are included in the 41 mentioned in this report, and the other five are included in those which are vacant properties acquired for light, air or recreation purposes, and not included in the estimate of the cost of the 41 sites. In the report the Board of Education states that it has plans under way for 12 of these plots, and plans ready for 2. Of the 12 plots for which plans are under way 5 are in Manhattan and have been in the possession of the City 31 months, 26 months, 6 months, 4 months and 2 months, respectively. Four of these are for additions to existing school-houses and 1 for a new school. Buildings are still standing on all of these 5 plots, as is the condition also of the property for which plans are reported ready.

In the Borough of The Bronx plans are under way for 2 plots, 1 of which has been in the possession of the City for 53 months and the other for 5 months.

In the Borough of Brooklyn plans are reported under way for 2 plots which the City has held for 15 months and 4 months, respectively.

Plans are also under way for a plot in Queens which the City has held title to for 17 months, and plans ready for a plot which has been in the City's hands for 4 months.

In Richmond Borough plans are under way for the 2 plots that have been in the possession of the City for 2 and 8 months, respectively.

You will notice that in no case has a contract been reported let or awarded for the improvement of any of the 41 plots that have been in possession of the City from 2 to 70 months. The attached compilation will show those plots for the improvement of which there are plans under way or ready.

The Board of Education in its report of December 31, 1903, does not account for all of the plots mentioned in your report. They are, however, properly included in your report, as in each case the buildings are still standing and the plots are useless in the present condition.

Under date of December 17, 1902, you addressed a communication to the President of the Board of Education giving a list of 42 properties acquired for school purposes throughout the City. You requested that the list be examined and that you be advised as to the intention of the Board of Education concerning these properties, and that the properties not needed for school purposes be turned over to the Commissioners of the Sinking Fund for their disposition. The Board of Education on January 17, 1903, submitted a report in reply to your request, in which it explained the status of each of the 42 sites or properties. In the report of the Board of Education 10 of the 41 properties treated of in this report are mentioned, 8 in Manhattan and 1 each in The Bronx and Brooklyn.

Borough of Manhattan—Of the property on Fifteenth and Sixteenth streets, between First avenue and Livingston place, which has been owned by the City for 70 months, the Board of Education says that it is its intention to use the site "for manual training high school and girls' technical high school. It is expected that contracts will be let early this year (1903)." In the report of the Board of Education of December 31, 1903, nearly a year later, it is indicated that no action has been taken to improve this site. In their report of January 17, 1903, the Board of Education reports on the following properties:

Nos. 208 to 218 East Thirty-third street;

Nos. 437 to 439 West Forty-ninth street;

Nos. 327 to 337 East Fourth street;

—that they "will be improved as soon as funds are available." In their report of December 31, 1903, plans under way are reported for the Fourth street site, but nothing is said about the other two. Regarding No. 29 Norfolk street, it is reported, on January 17, 1903, that additional property is being acquired and a large building will soon be erected. No action toward this improvement was reported in the December 31 report.

Of the plot facing on Broome, Clarke and Dominick streets, which was acquired for a new school, the Board of Education reports, on January 17, 1903, that "a new building will probably be erected in the near future." On December 31, 1903, according to the report of the Board of Education, plans were not yet under way for this site, which has been owned by the City for over 30 months, and has now cost, for carrying charges and loss of taxes, over \$36,000. Regarding No. 456 West Fifty-eighth street and Nos. 169 to 173 East One Hundred and Fourteenth street, it is stated in the January 17, 1903, report, that they will be improved "as soon as funds are available."

The Board of Education, in this same report of January 17, 1903, reports on one site in the Borough of The Bronx, located at Eagle avenue and One Hundred and Sixty-third street. It says that "addition will be built as soon as required and funds are available." The December, 1903, report of the Board of Education does not show that anything has been done with this site. In the Borough of Brooklyn, the Board of Education reports in January, 1903, in connection with the McKibbin street property, that it "will be improved as soon as funds are available."

As to the availability of funds, it is found by an investigation of the condition of the School Building Fund, that on January 1, 1903, ample funds were available. The condition of the "School Building Fund" on January 1, 1903, as shown by the books of this Department, was as follows:

Cash balances for all boroughs	\$4,452,320 46	
Bonds fully authorized and unissued	5,300,000 00	
		<hr/>
		\$9,752,320 46
Contract liability	\$4,133,435 68	
Land liability	69,550 00	
		<hr/>
		4,202,985 68
Available January 1, 1903, for school sites and the improvement of sites..	\$5,549,334 78	<hr/>

The condition of this same fund on December 31, 1903, was:

Cash balances for all boroughs	\$639,631 79	
Bonds fully authorized and unissued.....	11,718,430 00	
		<hr/>
		\$12,358,061 79
Contract liability	\$5,344,258 58	
Land liability	585,172 00	
		<hr/>
		5,929,430 58
Available January 1, 1904, for school sites and the improvement of sites.	\$6,428,631 21	<hr/>

To summarize, your investigation has developed the fact that there are in the Greater City, available for school purposes, 41 plots which have been left idle and unimproved. Most of those in Manhattan and Brooklyn are well distributed and favorably located for school purposes, as are those also in the other boroughs.

It cannot be urged that those properties on which buildings have been allowed to remain for the great length of time reported, were awaiting plans and specifications for the proposed new purposes, nor can this excuse be more properly made in connection with the vacant properties. There are several instances where the Board of Education actually opened bids for the erection of new school buildings before the title of the property on which they were to be built became vested in the City. These instances are reported on in the supplementary report affecting the conditions of school sites that have been improved. While this condition is irregular it is not entirely improper.

The Board of Education is practically assured that a site will be available for its purposes when action has been taken by the Board of Estimate and Apportionment, and it is practicable to have plans prepared during the interval between the action of the Board of Estimate and Apportionment and the time when the City takes physical possession of a site.

The failure of the Board of Education to improve the sites which have been available and subject to their orders has not only aggravated the condition of inadequate seating capacity for children of school age, but has placed an unnecessary burden on the taxpayers, as the following statement shows:

The City has paid for the 41 sites mentioned, which does not include those acquired and actually used for light, air and ventilation, or for play and recreation grounds:

	Cost of Property.	Carrying Charges to Jan. 9, 1904.	Amount of Tax Loss.
Manhattan	\$1,539,854 74	\$162,489 52	\$51,693 28
The Bronx	149,486 20	8,973 18	3,404 33
Brooklyn	209,808 20	8,360 20	2,896 47
Queens	35,410 11	3,879 82	1,556 66
Richmond	4,750 00	48 00	5 73
	<hr/>	<hr/>	<hr/>
	\$1,939,308 85	\$183,750 72	\$59,556 47
	183,750 72		
	59,556 47		
	<hr/>		
	\$2,182,616 04		

This is the amount that has been needlessly employed, as not a single contract has been let for improvements on any of the property included in this large sum. The \$183,750.72, carrying charges, has been a direct drain on the taxpayers, as the interest and installment amounts for the bonds are raised by taxation. This is also true of the \$59,556.47, the loss of taxes which would have been paid into the City Treasury, and have reduced taxes by just that amount. It will cost the City each year that these properties remain in their present condition, for carrying charges, \$87,268.90. This is the annual cost of carrying the principal invested, and will have to be raised by taxation annually. In addition, the loss of taxes will, at a 1.50 rate for all boroughs, amount to \$29,032.35 annually.

The revenue from buildings on the property acquired in the form of rents have been more than offset by the appropriations that have been made for buildings and quarters rented by the Board of Education for use as classrooms. The Board has been allowed for 1904, for rent, \$129,366.20.

At least ninety per cent. of this will be used for class-rooms. In the estimate of expenses for 1904, submitted to the Board of Estimate and Apportionment by the Board of Education, they requested that money be provided for 101 properties that they desired to lease, in which estimate the sum of \$26,750 was not itemized.

Manhattan.....	27 leases requested and \$10,000 not itemized.
Brooklyn.....	37 leases requested and 5,000 not itemized.
Bronx.....	14 leases requested and 5,000 not itemized.
Queens.....	17 leases requested and 5,750 not itemized.
Richmond.....	6 leases requested and 1,000 not itemized.

In addition to the 41 properties or sites previously mentioned, the Board of Education has, by resolutions, requested the Board of Estimate and Apportionment to authorize the following:

	Sites.
Manhattan	7
Bronx	5
Brooklyn	18
Richmond	7
Queens	7
Total	44

These applications are now being considered. Exclusive of the 44 sites requested there are now in the course of condemnation:

	Sites.
Manhattan	3
Queens	2
Brooklyn	7
	<hr/>
Total	12
	<hr/> <hr/>

Respectfully submitted,

E. E. SCHIFF, Clerk to the Comptroller.

Sites Acquired for the Board of Education

Location of Sites.	Date of Vesting of Title.	Number of Mos. Owned by City.	Cost of Property.	Carrying Charges to Jan. 9, 1904.	Amount of Tax Loss.
<i>Borough of Manhattan.</i>					
Sixty-third street, No. 214 East.	Apr. 17, 1899	57	\$17,683 20	\$3,779 74	\$1,160 67
One Hundred and Fourteenth street, Nos. 169-173 East.	Feb. 11, 1901	31	27,974 20	3,251 98	1,083 17
Clark, Broome and Dominick streets	July 27, 1901	29	241,922 00	26,309 02	9,654 06
Fourth street, Nos. 327 to 337 East	Nov. 3, 1901	26	126,297 70	12,314 06	3,295 84
Forty-ninth street, Nos. 437-439 West	Dec. 27, 1901	24	50,645 15	4,558 05	1,310 37
Thirty-third street, Nos. 208-218 East	Dec. 9, 1901	25	72,273 25	6,925 59	1,865 38
Norfolk street, No. 29	Dec. 18, 1901	24	37,250 00	3,372 50	980 04
Fifty-eighth street, No. 456 West	May 14, 1902	19	33,760 20	2,405 40	848 49
James street, No. 92	Jan. 26, 1903	11	35,298 00	1,456 04	440 00
Twenty-first street, Nos. 219-221 East	Jan. 19, 1903	11	46,435 00	1,915 44	581 84
King street, No. 27	Mar. 6, 1903	10	19,190 00	719 63	237 94
Fifty-fifth street, Nos. 132-134 West	Mar. 12, 1903	8	65,000 00	1,950 00	824 85
First avenue, No. 937	Apr. 6, 1903	9	28,180 00	951 08	348 34
Ninth street, East, Nos. 605 to 615	July 17, 1903	6	227,735 00	5,124 04	2,867 69
Tenth street, East, Nos. 350 to 360	July 17, 1903				
Seventeenth street, No. 418 East	Aug. 19, 1903	4	20,500 00	384 38	260 14
One Hundred and Ninth street, No. 219 East	Sept. 10, 1903	4	14,000 00	210 00	177 66
One Hundred and Ninth street, No. 221 East	Oct. 28, 1903	2	13,000 00	97 50	
Forty-first street, Nos. 209 to 213 East	Oct. 15, 1903	2	35,000 00	262 50	.....
First street, East, No. 44, rear of	Oct. 14, 1903	2	8,010 00	60 08	.....
Seventeenth street, Nos. 410 to 416 East	Oct. 27, 1903	2	93,054 74	697 91	.....
Fifteenth and Sixteenth streets, between First avenue and Livingston place	Feb. 25, 1898	70	326,645 90	85,744 58	25,756 80
			<u>\$1,539,854 34</u>	<u>\$162,489 52</u>	<u>\$51,693 28</u>
a. One Hundred and Third street, west of Second avenue	Apr. 22, 1901	32	\$12,001 90	\$1,440 24	.....
b. One Hundred and Forty-seventh street, west of Seventh avenue	Apr. 25, 1901	32	67,606 60	8,112 84	.....
c. Eighteenth street, No. 357 West	May 7, 1903	8	6,608 60	200 97	.....
Forty-fifth street, between Tenth and Eleventh avenues	Dec. 17, 1892	132	18,492 50	9,153 54	.....
	May 15, 1897	80	16,000 00	4,800 00	.....
<i>Borough of The Bronx.</i>					
Eagle avenue, between One Hundred and Sixty-first and One Hundred and Sixty-second streets	June 22, 1901	30	\$17,445 38	\$1,963 69	\$669 67
Longwood avenue, between Kelly and Beck streets	July 31, 1903	5	27,500 00	515 63	348 98
Ogden avenue and One Hundred and Sixty-ninth street	July 28, 1899	53	10,260 32	2,039 18	661 10
Juliana street and Elliot avenue	Feb. 5, 1894	119	4,600 00	2,035 50	609 81
	Mar. 7, 1899	46	7,582 62	1,308 07	480 27

a. Play-ground. b. Recreation ground. c. Light and air.

for School Purposes, and not Improved.

Condition of Property on Jan. 8, 1904	Size of Plot.	Adjoining or in Rear of Public School.	Board Educa- tion Report, Dec. 31, 1903.
Building still standing.....	25 x 100'	74	
Buildings still standing.....	63 x 111'	57	Plans under way
Buildings still standing.....	152 x 168 x 104'	..	
Buildings still standing.....	122 x 96'	15	Plans under way
Buildings still standing.....	139 x 100'	84	
Buildings still standing.....	100 x 100'	116	
Buildings still standing.....	25 x 100'	75	
Buildings still standing.....	25 x 100'	141	
Buildings still standing.....	25 x 100'	114	
Buildings still standing.....	44 x 100'	N.Y.T.S.	Plans ready
Buildings still standing.....	25 x 100'	8	
Buildings still standing.....	50 x 100'	69	
Buildings still standing.....	30 x 100'	135	
Buildings still standing.....	{ 150 x 92' } { 150 x 92' }	..	Plans under way
Buildings still standing.....	25 x 100'	104	
Buildings still standing.....	39 x 100'	83	Plans under way
Buildings still standing.....	60 x 100'	27	
Buildings still standing.....	25 x 25'	79	
Buildings still standing.....	100 x 92'	104	Plans under way
Buildings still standing.....	210 x 106'		
Vacant lots.....	50 x 100 x 201'	121	
Vacant lots.....	150 x 200'		
Vacant lots.....	20 x 47'		
Vacant lots.....	100 x 100'	rear of 56 51	
Vacant lot and one building.....	25 x 99' and 75 x 130'	90	
Vacant lots.....	200 x 100'	..	Plans under way
Vacant lots.....	50 x 86', 168 x 108' x 179'	91	Plans under way
Vacant lots.....	200 x 125'	..	

Location of Sites.	Date of Vesting of Title.	Number of Mcs. Owned by City.	Cost of Property.	Carrying Charges to Jan. 9, 1904.	Amount of Tax Loss.
Prospect avenue and Jennings street	Sept. 17, 1903	4	\$50,000 00	\$750 00	\$634 50
Gerard and Walton avenues...	Oct. 6, 1903	3	32,097 88	361 11	.....
			<u>\$149,486 20</u>	<u>\$8,973 18</u>	<u>\$3,404 33</u>
<i>Borough of Queens.</i>					
Jamaica and Hopkins avenue..	Jan. 12, 1901	36	\$9,463 59	\$1,277 74 }	\$750 21
Washington and Pulaski streets	May 21, 1901	31	7,005 80	814 45 }	
John street and Prospect place.	July 16, 1902	17	3,938 45	219 94	109 40
Charlotte avenue and Seventh street	Aug. 9, 1899	53	2,550 00	506 81	242 45
Kaplan avenue, Hammond and Horton streets	May 26, 1901	31	8,633 10	1,003 59	404 08
Kouwenhoven street, Long Island City	Aug. 31, 1903	4	3,819 17	57 29	50 52
			<u>\$35,410 11</u>	<u>\$3,879 82</u>	<u>\$1,556 66</u>
<i>Borough of Richmond.</i>					
Boulevard, between Wardwell avenue and Fisk avenue..	Nov. 2, 1903	2	\$4,200 00	\$31 50	.....
Pleasant avenue and Woodrow road	Apr. 23, 1903	8	550 00	16 50	\$5 73
			<u>\$4,750 00</u>	<u>\$48 00</u>	<u>\$5 73</u>
<i>Borough of Brooklyn.</i>					
McKibbin street, between Graham and Manhattan avenues	July 29, 1901	30	\$5,671 00	\$633 79	\$215 57
Albany avenue and Dean street	Oct. 15, 1902	15	42,000 00	2,362 50	
Bushwick avenue, between McKibbin and Siegel street..	Apr. 16, 1903	8	28,000 00	840 00	
Hicks street, Nos. 27 to 39....	Sept. 21, 1903	4	17,000 00	235 00	
Poplar street, Nos. 52 to 62...	May & Sept., 1903	4	49,600 00	744 00	
Middagh street, Nos. 49 to 53	May & July, 1903	6	22,000 00	495 00	2,541 46
Quincy street, No. 864.....	May & June, 1903	6	19,500 00	438 75	
Suydam street, No. 355.....	Aug. 28, 1903	4	10,000 00	150 00	
d. Eleventh avenue, Windsor place and Sherman street.	Aug. 28, 1903	4	2,700 00	40 50	
	Jan. 8, 1900	48	13,337 20	2,400 66	139 44
			<u>\$209,808 20</u>	<u>\$8,360 20</u>	<u>\$2,896 47</u>
e. Humboldt street, south of Engert street	Sept. 9, 1901	28	\$4,698 60	\$493 40	.....
f. Watkins street, south of Glenmore avenue	Apr. 7, 1903	5	3,400 00	63 75	.....
g. Monitor street, near Driggs avenue	Nov. 10, 1899	50	6,560 75	1,230 19	.....
h. Putnam avenue and Madison street, near Marcy avenue	Dec. 9, 1899	49	53,177 65	9,771 46	.....
i. Bedford avenue, near East Broadway	Sept. 18, 1901	28	30,162 03	3,167 01	.....

d. Streets not opened. e. Light and air. f. Light and air. g. Play-ground. h. Play-ground.

Condition of Property on Jan. 8, 1924.	Size of Plot.	Adjoining or in Rear of Public School.	Board Educa- tion Report, Dec. 31, 1903.
Vacant lots.....	286 x 234 x 33 x 341'	..	
Vacant lots.....	201 x 203 x 223 x 47'	..	
{ Vacant lots.....	190 x 125'	..	
{ Vacant lots.....	262 x 214'	..	
Vacant lots.....	150 x 100'	71	Plans under way
Vacant lots.....	100 x 180'	..	
Vacant lots.....	200 x 206'	..	
Vacant lots.....	100 x 100'	6	Plans ready
Vacant lots.....	150 x 145'	..	Plans under way
Vacant lots.....	200 x 200'	..	Plans under way
Building still standing.....	25 x 100'	21	
{ Vacant lots.....	200 x 175'	..	Plans under way
{ Vacant lots and frame buildings....	201 x 227'	..	Plans under way
{ Buildings still standing.....	200 x 169'		
{ Buildings still standing.....			
{ Buildings still standing.....	41 x 100'	26	
{ Buildings still standing.....			
{ Buildings still standing.....	25 x 100'	123	
Vacant lots.....	200 x 210'	..	
Vacant lots.....	64 x 100'	51	
Vacant lots.....	50 x 100'	84	
Vacant lots.....	100 x 60'	110	
Vacant lots.....	200 x 140'	B.H.S.	
Frame buildings still standing.....	150 x 252'	rear of E. H.	Plans under way

i. Used as classrooms.

RECAPITULATION.

Borough.	Cost of Property.	Carrying Charges to January 9, 1904.	Amount of Tax Loss.
Manhattan	\$1,539,854 34	\$162,489 52	\$51,693 28
Bronx	149,486 20	8,973 18	3,404 33
Brooklyn	209,808 20	8,360 20	2,896 47
Queens	35,410 11	3,879 82	1,556 66
Richmond	4,750 00	48 00	5 73
Totals.....	\$1,939,308 85	\$183,750 72	\$59,556 47
Grand total cost of property up to January 9, 1904.....			\$2,182,616 04

(Excluding property used for light, air or playgrounds and reported herein as vacant property.)

REPORT No. 10.

Showing the Lapse of Time Between the Acquisition of Property and the Letting of Contracts for Construction Thereon on Contracts by The Board of Education during 1901, 1902 and 1903.

Hon. EDWARD M. GROUT, *Comptroller*:

SIR—Supplementary to the report showing the status of property acquired for school purposes and not improved, the following report, with attached data, showing the condition of properties acquired that have been improved, is respectfully submitted, in pursuance with your instructions.

The investigation to ascertain how long sites, upon which contracts for construction have been let during the past three years, were held before being improved shows the same condition of premature purchase and investment in properties, with the attendant loss growing out of carrying charges and the loss of taxes, as exists in connection with the properties purchased and not improved.

In the Borough of Manhattan contracts were let for 12 new schools, or additions to schools already built. The title for the properties improved had been vested in the City for one of the plots, that on which the DeWitt Clinton High School is being erected, for nearly seven years before a contract was let. The cost to carry this piece of property from vesting date to the date the contract was let was \$62,564.76, and the loss of taxes amounted to \$16,634.84, a total of \$79,199.60.

Of the other plots, one was owned by the City for 61 months, one for 60 months, one for 55 months, one for 24 months, the others for 13, 12, 9, 7, 6 and 4 months, respectively. The contract for the improvement of the remaining plot and addition to Public School 106, on Mott and Elizabeth streets, near Spring street, was let on December 30, 1902, two days before title to the property was vested (January 2, 1903) in the City.

The carrying charges for the Manhattan properties from the date title was

vested to the date that contracts were let, were.....	\$150,499 42
Loss of taxes.....	38,323 48

Cost to the City for carrying charges and taxes.....	\$188,822 90
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Taxes are computed on the basis of the valuations and at the rates that prevailed in the different boroughs during the period these properties were unimproved. Taxes are not charged for any year in which a contract was let, on the assumption that the property would have been bought in such year. Neither are they figured for any year where title vested after the first Monday of October. Allowance was also made for condemnation costs.

In the Borough of The Bronx four contracts were let, the plots being in possession of the City for 59 months, 45 months, 8 months and 2 months, respectively.

The carrying charges for the Borough of The Bronx were.....	\$21,679 43
Loss of taxes.....	4,446 06
	<hr/>
Cost to the City for carrying charges and taxes.....	<u>\$26,125 49</u>

In the Borough of Queens four contracts were let after the properties had been in the City's possession for 23, 12, 6 and 3 months, respectively.

The carrying charges for the Borough of Queens were.....	\$2,275 38
Loss of taxes.....	431 55
	<hr/>
Cost to the City for carrying charges and taxes.....	<u>\$2,706 93</u>

In Richmond Borough two contracts were let, the City being in possession of the properties for 7 and 4 months.

The carrying charges were.....	<u>\$556 10</u>
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For the Borough of Brooklyn the attached compilation is arranged to show properties improved, for which title was vested in the City previous to February, 1902, when the present Board of Education assumed control of the school affairs of that borough, and those that were acquired subsequent to that time. The whole, however, presents the conditions that existed, and consists of 18 plots of property. They were in possession of the City before contracts for improvements were let for periods varying from 3 months to 33 months. Contracts for schools on 2 of these plots were let before title to the property was vested in the City. The contract for School 145, Central avenue and Noll street, was let December 29, 1902, and the title to the site was not vested in the City until January 9, 1903, 11 days later. The contract for School 47, on Pacific street, between Third avenue and Nevins street, was let April 6, 1903, the City coming in possession of the site on May 20, 1903, over 6 weeks later.

The carrying charges for the Brooklyn properties were.....	\$30,950 97
Loss of taxes.....	6,971 55
	<hr/>
Cost to the City for carrying charges and taxes.....	<u>\$37,922 52</u>

Summarized, the cost of allowing school sites to remain idle for the periods mentioned, was:

	For Carrying Charges.	For Loss of Taxes.
Manhattan	\$150,499 42	\$38,323 48
The Bronx	21,679 43	4,446 06
Brooklyn	30,950 97	6,971 55
Queens	2,275 38	431 55
Richmond	556 10	.....
	<hr/>	<hr/>
	\$205,961 30	\$50,172 64
	50,172 64	
	<hr/>	
Total cost to City.....	\$256,133 94	

The detail of the 40 improvements mentioned in this report will be found on the attached compilation.

Respectfully submitted,

E. E. SCHIFF, Clerk to the Comptroller.

Statement Showing the Delay in

Location of Sites.	Title Vested to Site.
<i>Borough of Manhattan.</i>	
Public School 186, One Hundred and Forty-fifth and One Hundred and Forty-sixth streets, between Amsterdam avenue and Broadway.....	Mar. 14, 1899
Public School 188, East Houston, Lewis, Third and Manhattan streets.....	May 22, 1901
DeWitt Clinton High School, Tenth avenue, Fifty-eighth and Fifty-ninth streets..	Feb. 26, 1898
Public School 31, Monroe and Gouverneur streets.....	Apr. 25, 1901
Public School 39, One Hundred and Twenty-sixth street, between Second and Third avenues	Nov. 17, 1897
Public School 190, Eighty-second street, between First and Second avenues.....	July 27, 1901
Public School 110, Broome and Cannon streets.....	Jan. 17, 1902
Public School 132, Wadsworth avenue, between One Hundred and Eighty-second and One Hundred and Eighty-third streets.....	Nov. 26, 1897
Public School 106, Mott and Elizabeth streets, near Spring street.....	Jan. 2, 1903
Public School 183, Sixty-sixth street, near First avenue.....	May 21, 1898
Public School 150, Ninety-fifth and Ninety-sixth streets, near First avenue.....	Mar. 2, 1903
Public School 62, Hester street, between Essex and Norfolk.....	July 7, 1903
<i>Borough of The Bronx.</i>	
Morris High School, Boston road and One Hundred and Sixty-sixth street....	Feb. 26, 1897
Public School 176, Ametyst avenue, north of Morris Park.....	Dec. 20, 1897
Public School 145, One Hundred and Sixty-fifth street, between Tinton and Union avenues	Oct. 29, 1901
Public School 37, One Hundred and Forty-fifth and One Hundred and Forty-sixth streets, east of Willis avenue.....	July 7, 1903
<i>Borough of Queens.</i>	
Public School 83, Vernon avenue, between Pierce and Graham avenues.....	Jan. 12, 1901
Long Island City High School, Wilbur avenue and Academy street.....	Apr. 18, 1901
Public School 84, Albert street, Ditmars and Potter avenue.....	Oct. 27, 1902
Public School 81, Cypress avenue, Ralph and Bleecker streets.....	Aug. 26, 1902
<i>Borough of Richmond.</i>	
Public School 34, Fingerboard road, between Grant and Ft. Wadsworth.....	May 13, 1902
Public School 26, Richmond turnpike, between Wilde and Prospect.....	Feb. 13, 1903
<i>Borough of Brooklyn.</i>	
Public School 130, Ft. Hamilton avenue, between Ocean parkway and East Fifth street	Nov. 11, 1899
Public School 138, Prospect place, west of Nostrand avenue.....	Jan. 10, 1900
Public School 112, Fifteenth avenue, Seventy-first and Seventy-second streets....	Aug. 30, 1901
Public School 100, Third street, between Park place and Sheepshead avenue.....	Sept. 8, 1901
Public School 129, Quincy street, between Stuyvesant and Lewis avenues.....	Nov. 11, 1899
Male Training High School, Seventh avenue, Fourth and Fifth streets.....	Nov. 21, 1900
Public School 7, York, near Bridge street.....	Aug. 14, 1901
Public School 142, Henry and Rappelyea streets.....	Apr. 3, 1901
Public School 137, Saratoga avenue, between Chauncey and Bainbridge streets....	Jan. 5, 1900
Public School 139, Avenue C, between Thirteenth and Fourteenth streets.....	Aug. 26, 1901
Public School 141, Leonard street, between McKibben and Boerum streets.....	Aug. 10, 1901
Public School 143, Havemeyer street, North Sixth and North Seventh streets....	Apr. 17, 1902
Public School 119, Avenue K and East Thirty-eighth street.....	Apr. 17, 1902
Public School 144, Howard avenue, between Prospect place and St. Mark's.....	Apr. 17, 1902
Public School 146, Eighteenth and Nineteenth streets, east of Sixth avenue.....	June 11, 1903
Public School 80, West Seventeenth and Nineteenth streets, near Neptune avenue.	Sept. 28, 1903
Public School 145, Central avenue and Noll street.....	Jan. 9, 1903
Public School 47, Pacific street, between Third avenue and Nevins street.....	May 20, 1903

Total cost to the City for carrying charges and loss of taxes from date of vesting

the Improvement of School Sites.

Contract Let.	Number of Mos. Before Contract Was Let.	Cost of Property.	Carrying Charges From Vesting Date to Letting Date.	Amount of Tax Loss.	Years.
Mar. 15, 1901	24	\$110,414 80	\$9,937 36	\$3,140 15	1899-1900
Dec. 23, 1901	7	359,135 35	9,427 29	.....	.....
Nov. 11, 1903	68	245,351 80	62,564 76	16,634 84	1898-1902
June 13, 1902	13	87,211 84	4,251 59	1,208 73	1901
Dec. 22, 1902	61	117,140 55	26,796 00	10,589 54	1898-1901
July 25, 1902	12	76,355 75	3,436 02	1,058 28	1901
Oct. 13, 1902	9	120,433 15	4,064 61	.....	.....
Nov. 3, 1902	60	25,755 35	5,794 85	1,396 95	1898-1901
Dec. 30, 1902	..	.....	.....	.....	.....
Dec. 15, 1902	55	79,186 95	16,332 32	4,294 99	1898-1901
Sept. 23, 1903	6	85,952 20	1,933 92	.....	.....
Nov. 9, 1903	4	397,380 00	5,960 70	.....	.....
			<u>\$150,499 42</u>	<u>\$38,323 48</u>	
Nov., 1900	45	\$100,404 49	\$16,943 18	\$3,957 90	1897-1899
Nov. 7, 1902	59	9,000 00	1,991 25	488 16	1898-1901
June 20, 1902	8	68,994 65	2,069 85	.....	.....
Sept. 23, 1903	2	90,020 00	675 15	.....	.....
			<u>\$21,679 43</u>	<u>\$4,446 06</u>	
Dec. 1, 1902	23	\$12,955 40	\$1,117 37	\$179 56	1901
May, 1902	12	18,183 15	636 41	251 99	1901
Apr. 20, 1903	6	15,590 00	348 75	.....	.....
Dec. 15, 1902	3	15,364 70	172 85	.....	.....
			<u>\$2,275 38</u>	<u>\$431 55</u>	
Dec. 30, 1902	7	\$20,499 00	\$538 10	.....	.....
June 29, 1903	4	1,200 00	18 00	.....	.....
			<u>\$556 10</u>	<u>.....</u>	
Aug. 15, 1902	33	\$36,520 87	\$4,519 47	\$1,087 20	1900-1901
June 27, 1902	29	58,068 78	6,315 00	1,682 87	1900-1901
Nov. 23, 1903	26	12,265 50	1,195 84	373 09	1901-1902
Aug. 17, 1903	23	9,656 33	832 83	297 62	1901-1902
July 8, 1901	20	34,143 00	2,560 72	514 83	1900
June 4, 1902	18	92,450 70	6,240 44	1,430 19	1901
June 8, 1903	22	21,798 55	1,798 42	671 56	1901-1902
July 3, 1902	15	26,762 20	1,505 36	414 00	1901
Jan. 7, 1901	12	33,170 90	1,493 01	500 19	1900
Dec. 9, 1901	3	18,949 73	213 19	.....	.....
Nov. 18, 1901	3	113,265 45	1,274 23	.....	.....
Nov. 12, 1902	7	54,454 59	1,429 44	.....	.....
Dec. 30, 1902	8	14,134 80	424 05	.....	.....
Dec. 24, 1902	8	21,799 42	653 97	.....	.....
Sept. 8, 1903	3	32,750 00	368 44	.....	.....
Dec. 28, 1903	3	11,250 00	126 56	.....	.....
Dec. 29, 1902	..	.....	.....	.....	.....
Apr. 6, 1903	..	74,909 36	.....	.....	.....
			<u>\$30,950 97</u>	<u>\$6,971 55</u>	
of title to date contracts were let.....				\$256,133 94	

RECAPITULATION.

	Carrying Charges.	Amount of Tax Loss.
Manhattan	\$150,499 42	\$38,323 48
The Bronx	21,679 43	4,446 06
Brooklyn	30,950 97	6,971 55
Queens	2,275 38	431 55
Richmond	556 10	.....
	<hr/> \$205,961 30	<hr/> \$50,172 64

REPORT No. 11.

Circulating Class Libraries—A Costly Feature of Work in the Schools, Which is Made Superfluous by the Public Libraries.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions to inquire into the matter of the circulating class libraries, now being established in the elementary schools of the City by the Board of Education, I beg to submit the following report:

Instead of training the children in the public schools to use the splendid public libraries which are everywhere at hand, and which are maintained by the City at an annual cost of nearly half a million dollars, the Department of Education has recently adopted the plan of establishing a small class library in each of the ten thousand classrooms of the elementary schools, and is now spending \$50,000 a year on this scheme. The idea is to furnish the children with books which they may carry home and read out of school hours.

These libraries are established under the conditions of the Consolidated School Law, which was enacted in 1894, and which provides that,

“So much of the school library money as shall be needed for that purpose shall be apportioned among the several cities and school districts by the State Superintendent of Public Instruction, who may, so far as consistent with the law, make, alter or repeal any rules that he may deem proper for regulating expenditures of the school library money, and the administration and care of school libraries established or maintained under authority of this act; provided that no portion of the school library money shall be expended except for books approved by the said Superintendent.”

To entitle a city to share in the State library money it must raise for school library purposes a sum at least equal to that which it shall receive from State funds, and the City Superintendent or some other authorized agent of the Board of Education, must certify to the State Superintendent the raising of the said sum, and must agree to expend, in accordance with the law and regulations governing the expenditure of such moneys, this sum and the sum which the City may receive from the State.

THE SCHOOL LIBRARY FUND.

Prior to consolidation, this school library money was paid to the former municipalities and school districts, but after consolidation the educational interests of the City were gradually centralized, and, in 1903, the school library funds of the several bor-

oughs were drawn together, the accumulated balance on December 31, 1902, being \$92,760.61. The appropriation by the State for 1903 was \$22,184.50, and on June 2, 1903, the Comptroller of the City paid over an equal amount to the City Chamberlain. This money is placed to the credit of the school library fund, and is drawn upon by vouchers of the Board of Education. The amount appropriated by the State for 1904 is \$21,530.15, and a similar amount will be contributed by the City.

SUMMARY.

Balance on hand December 31, 1902.....	\$92,760 61
Appropriation by State for 1903.....	22,184 50
Appropriation by City for 1903.....	22,184 50
Appropriation by State for 1904.....	21,530 15
Appropriation by City for 1904.....	21,530 15
Total	<u>\$180,189 91</u>

THE PLAN ADOPTED.

In 1902 the Board of Education began to consider ways and means of spending the accumulated moneys. The Committee on Lectures and Libraries recommended that it be applied, as far as practicable, to the establishment of class libraries composed of books selected to meet the needs of the pupils according to age. One of these libraries was to be placed in each schoolroom, and, although the books were to be used for general reference, still the main purpose was to furnish the child with books to be read outside of school hours. A special time was to be set aside when books could be drawn out and taken home, the teacher acting as librarian. On July 7, 1902, the Board of Education adopted the report, authorized the establishment of a Bureau of Libraries and the appointment of a Superintendent of Libraries, to have general supervision of public school libraries under the direction of the Committee on Lectures and Libraries. On February 15, 1905, Mr. Claude G. Leland, of Buffalo, was appointed Library Superintendent.

Statistics collected for the Committee on Lectures and Libraries in 1902 showed that 67 of the schools were practically without library books of any description, while each of the remaining schools reported one or more class libraries in operation. The schools were divided into two classes, those having libraries and those having none, and in April, 1903, the entire balance available for library purposes (\$138,986.75) was apportioned among the various schools. Those schools which had no books were allowed \$16.60 per class for circulating libraries. Those already having such libraries in operation were allowed \$9.80 per class. In addition to the appropriation for class libraries, each school received a small allotment for reference books to be placed in its Reference and Teachers' Library.

The Superintendent of Libraries prepared a graded list of books suitable for use in the eight school years, which, after approval by the Board of Superintendents of

the City and the State Superintendent of Public Instruction, was adopted by the Board of Education for use in the schools. A catalogue was printed and sent to principals, with instructions to make out requisitions for books to the amount allotted to their particular schools. This was done.

In the meantime bids were received, contracts awarded, and the books are now being delivered. On January 1, 1904, 200,000 of the 237,000 ordered were already in the schools. It is unnecessary to speak in detail of the character of these books because, as a whole, the selections made by the Superintendent of Libraries for use in the schools are excellent. The list includes practically all the best books in the market, and contains few to which any objections can be made.

HOW THE PLAN WORKS.

Inquiry made by me and other representatives of this Department disclosed the fact that the air is rife with criticism of the whole class library system. In the first place, principals and teachers complain of being so overworked as to be unwilling to assume the care and responsibility involved in the successful use of these circulating libraries, especially when they feel that there is no good reason for doing it.

Protests are made against the delivery of the books on the ground that the pupils are so abundantly supplied with reading matter in the form of regular and supplementary readers and other books that they do not need these library books in school, while for home use the children go to the near-by branch of the circulating department of the Public Library and get all the good books they want. In fact, children in the City schools are so loaded with books of all kinds that they are becoming stoop-shouldered carrying them to and fro. As one of the principals remarked in talking of the library matter: "I was forced to order nearly three hundred dollars' worth of books for these circulating libraries or pay the penalty of being charged with lack of sympathy with so-called progressive methods in education, although my teachers did not want the books and the children do not need them."

COST OF THE SYSTEM.

In addition to the use of the school library money, which is all appropriated for the purchase of books, the Board of Education maintains a Library Bureau to direct the work. This Bureau consists of the Superintendent of Libraries, at \$2,000 per year, and two clerks, one receiving a salary of \$1,050 and the other a salary of \$750 per year. The system also necessitates other expenditures, such as the purchase of over nine hundred bookcases, a contract for which was recently awarded.

Estimated Cost of Circulating Libraries per Year.

Appropriation by State (approximately).....	\$22,000 00
Appropriation by City (approximately).....	22,000 00

Salaries of Bureau.....	\$3,800 00
Incidentals in office of Bureau, bookcases for schools, etc., etc.....	2,000 00
Total.....	<u>\$49,800 00</u>

IT STANDS IN THE WAY OF PROGRESS.

But, aside from the advisability of economizing money, the necessity for the highest possible efficiency in the supremely important work of supplying the children of the City with reading matter in the home demands a better machine than it is possible to set up in the school-rooms. About all the elementary school, at best, can do for a child is to teach him to read and write, and unless he forms the reading habit while in these grades his education is so far a failure. In order to form this habit he should use a library, but this does not mean that the elementary school teacher must function as librarian, too.

The City maintains a corps of competent librarians to do this work. The school and the library are co-ordinate parts of one great educational system, each having its own division of labor, and, if the highest educational results are to be attained, they must co-operate in the business of educating the children. The teacher's task is to help the child to use the public libraries by arousing his interest in various subjects and directing him in the use of books pertaining to these subjects which may be found at the near-by library centre. Children should early form the habit of going to the library as well as the school. This can only be accomplished by the closest co-operation between school and library, and never by such a plan as the one now being introduced by the Board of Education. The circulating class libraries are, and must necessarily continue to be, too small to be of any practical use. The system in partial operation in the schools stands in the way of the larger development which should come about.

In this connection the Buffalo method is worth a careful examination. In that City the school library money is, in effect, turned over to the Public Library authorities to be used in the purchase of reference books for the schools and children's books for the circulating libraries, the result being a close working relation between the school and library systems. In casting about for a method of using the Library Fund the Department of Education investigated the Buffalo plan, and, for the most part, copied it, but they robbed it of its vitality by grafting it upon the school system instead of the public library system. Boston also is in advance of the metropolis in the matter of securing co-operation between the public library and the public schools. In his reports for 1902 and 1903 Superintendent Edwin P. Seaver gives an interesting account of what has been accomplished in the way of using the public library.

THE BOSTON PLAN.

The following plan is now in successful operation in the public schools of Boston, and its results have been highly gratifying. The public library sends an employee

to each grammar and high school once a year to take applications for library cards. The library sends to each grammar school a deposit of fifty to one hundred volumes, any losses of books being made good by the School Committee. In addition to this, books are reserved at a branch or station for the use of pupils upon application from the teacher, and under certain conditions these books may be taken to the school building. Catalogues of the library are placed in the schools to be used by the teachers in directing the reading of the pupils. A children's reference-room is maintained at the Central Library, with special facilities for carrying on school work. Hundreds of books have been bought by the public library especially for the use of the schools, and great attention is given to school children at all the branches and stations in the way of showing them where to get the information needed in connection with their lessons.

Superintendent Seaver says: "To form wise users of a public library may be accepted as a good definition of the purpose for which the common schools exist." In Boston it has been found that the reading of library books under the supervision of a teacher is the best possible introduction to the independent use of the public library by the children. The need in New York City is not to set up another system of libraries, but to train the children to use the libraries already in existence.

ONE LIBRARY SYSTEM ENOUGH.

In the near future, under the Carnegie endowment, New York City will have such a system of public libraries as the world has never seen. Twenty-eight of its branches are already in operation in various parts of the Borough of Manhattan, and within three years no child throughout the five boroughs will be more than half a mile from a fine library. The branches of the public library are well supplied with carefully-selected books for children, and all of them have children's reading-rooms. An intimate acquaintance with the working of the New York City branch libraries during the past five or six years enables me to say that they are very extensively used by the public school children. If the public school teachers would co-operate with the library authorities wonderful results might be achieved. An investigation showed that many of the books recently purchased for the schools are already in these libraries. The public library also has a Traveling Library Department, which is now delivering books to all parts of Manhattan and The Bronx, and its further development will soon put all library books needed within the reach of every school-room in the City.

In the very face of this universal library organization the school authorities are proposing to set up in miniature a duplicate plant. Ten thousand small circulating libraries are to be organized and maintained by a fund which only amounts to about \$44,000 a year. It is not a good business proposition. It means the creation of an expensive and cumbersome machine which is not needed and which, in the very

nature of things, can never be effective. The plan was evidently matured in the face of a protest from the City Superintendent, who said in his annual report for 1902:

"A little observation and reflection will convince any intelligent person that in our large schools the class library is impossible. There are about 10,000 classes in the elementary schools. We have not the means to provide 10,000 libraries. Nor is it necessary to do so. A well-selected library for each grade in a school is quite sufficient."

CONCLUSIONS.

The work of supplying reading matter for the home should be left to the public libraries, and the embarrassing school library fund, which gave rise to this ill-advised class library scheme, should be used for the purchase of supplementary reading matter, as was originally intended by the law. This would save \$50,000 a year. The Consolidated School Law was enacted at a time when the average child in the elementary schools of the State used one reader an entire year, and when educational leaders everywhere were urging the need of a more abundant supply of reading matter in these grades. The intent of the law was to supplement the meagre supply of the ordinary school with suitable reading books for children. This is now done in New York City out of the regular school supplies fund. Children in all classes of the elementary schools have an abundant supply of the best books which the market affords.

The framers of the Consolidated School Law could not anticipate a school system spending annually over half a million dollars for books alone and having the advantages of a public library system, the maintenance of which will soon cost another half million. The plan adopted by the Board of Education is an admirable one for a rural school in a district which has no public library, but when it is put upon the metropolis in the year 1904 it becomes an absurdity. The Board of Education has failed to see that the same forces which have compelled co-operation in the business world are already at work in the field of education.

Prior to consolidation sets of supplementary readers for the schools were frequently purchased by the Library Committee and paid for out of the library fund. No objection was ever raised to such a use of the money. In fact, the statute specifies "supplementary reading books" among the books to be purchased for the school libraries. No hard and fast distinction can be made between library books and supplementary readers. The main difference is that the latter are bought in sets. One copy of "Andersen's Fairy Tales" would be called a library book, but if twenty copies were purchased they would be called supplementary readers. If the library fund could be used to pay for a part of the enormous quantity of supplementary reading matter purchased for the schools every year, and paid for out of the school supplies fund, it would, in effect, save the City \$50,000 a year.

Respectfully submitted,

(Signed) (Mrs.) MATHILDE COFFIN FORD.

REPORT No. 12.

Free Lectures Under Direction of the Board of Education—Broadening of Course—Increase of Attendance.

Hon. EDWARD M. GROUT, Comptroller:

SIR—Pursuant to your instructions, and continuing the inquiry being made into the matter of disbursement of City funds for public education, examination has been made as to the scope of the work now undertaken by the Free Lecture Bureau of the Department of Education, with a statement as to the attendant cost. As a result of the examination thus made by your Examiners, I beg to report as follows:

BRIEF HISTORICAL RECORD OF THE FREE LECTURE COURSES.

The free lectures under the auspices of the Department of Education of this City were first instituted in 1889. This had been provided for in chapter 545 of the Laws of 1888, which law was enacted as the direct result of a newspaper agitation that had prevailed for some years previous. The original purpose, as stated in the first section of the act, was to provide for the employment of competent lecturers to deliver lectures on the "natural sciences and kindred subjects in the public schools in the evenings for the benefit of workingmen and workingwomen."

It was further provided that at least one school in each ward should be designated by the Board of Education for the purpose of carrying out the provisions of the act.

In accordance with the requirement of the act, the Board of Estimate and Apportionment of The City of New York appropriated the sum of \$15,000 for the purpose of carrying out the plan. The Committee on Evening Schools of the Board of Education was placed in charge of the lectures, and arranged a series, including lectures on physiology and hygiene, physics, travel, history and political science. During the first season, which lasted from January to April 1, 1889, 186 lectures were given. Six school-houses in those parts of the City where the population was most dense were selected as lecture centres. Two lectures weekly (on Monday and Thursday evenings) were given at each centre. The total attendance at these lectures was 22,149, an average of 115 at each lecture.

In the legislative session of 1889 the act of 1888 was amended so as to permit the Board of Education to advertise the lectures in the newspapers. The Evening Schools Committee, at the beginning of the second lecture season, in October, 1889, added another lecture centre, making seven in all. During this season lectures were

held three times weekly. This course lasted until April 1, 1890, and 329 lectures were delivered. The total attendance was 26,632, an average of 81.

"The attendance during that season," says Dr. Henry M. Leipziger, Supervisor of Lectures, in a monograph written by him some years ago, "did not indicate the popularity of this form of instruction, and the new Committee, Mr. Miles M. O'Brien, Chairman, resolved, that the 'Course of Lectures' be made a special subject for supervision." Shortly afterwards the Committee engaged Dr. Leipziger as Supervisor. The changes during the season of 1890-1 were: First, the issuing of pocket bulletins containing the list of lectures and brief statements explanatory of each lecture. Ten thousand bulletins were distributed in each lecture centre. Placards announcing the lectures were placed in the windows of leading stores and factories, the corps of lecturers was changed, specialists employed and the use of the stereopticon as a means of illustration was made more general.

The attendance reports for this season, from November, 1890, to April, 1891, showed a total of 78,295, an increase of over 50,000 over the preceding year. The number of lectures given was 185, or but little more than half the number given the year before.

RANGE OF SUBJECTS IN THE 1891 COURSE.

In order that a proper conception may be had of the range of subjects then treated, the names of the lecturers and the subjects for that season are here given:

Physiology and Hygiene.

Everyday Accidents and How to Meet Them—Dr. J. E. Newcomb.
How to Breathe—Dr. W. C. Phillips.
How to Take Care of the Eyes and Ears—Dr. J. O. Tansley.

Natural Science.

Fire and Water—Prof. C. A. Doremus.
Light and Color—Prof. H. A. Mott.
Steam Engine—Dr. C. S. Allen.
Flour Making—Prof. Grimshaw.
Wonders of the Heavens—Prof. J. R. Rees.
Practical Electricity—Prof. F. B. Crocker.
The World We Live In—Prof. E. S. Martin.
Ants and Their Habits—Prof. W. D. Heyer.
How Worlds Are Made—Mr. G. P. Serviss.
Small Builders in Great Oceans—Mr. S. Helm.

Travel (Illustrated by Views).

Paris and the Exposition—Mr. James Bowie.
India—Mr. E. W. Fisher.
Canons of the Colorado—Mr. F. S. Dellenbaugh.

Tour of the Nile—Dr. C. S. Wells.
 Glimpses of Arctic Regions—Mr. Wm. Bradford.
 Pompeii, The Buried City—Mr. M. T. Jefferis.
 City of Mexico—Mr. C. Pullen.
 The Greeley Expedition—Mr. W. Bradford.
 Through the Light Portions of the Dark Continent—Mr. J. Bowie.

History, Etc.

Benjamin Franklin—Dr. H. M. Leipziger.
 Abraham Lincoln—Mr. Stoddard.
 Battle of Gettysburg—Capt. J. Wilson.
 Napoleon—Mr. D. Downie.

Literature and Social Science.

The Newspaper—Mr. L. J. B. Lincoln.
 Popular American Poetry—Prof. R. E. Mayne.
 How to Prevent Strikes—Mr. Ed. King.
 Money and How to Make It—Mr. H. Powers.
 Survey of Architecture—Mr. M. T. Snelling.

"As the audiences varied in the different parts of our City," says Supervisor Leipziger, writing about the work in those days, "the policy was first to arouse their interest, but this was never done by giving merely amusing lectures. It is gratifying to record the fact that the most instructive lectures were those most keenly enjoyed."

PUBLIC HALLS RENTED FOR THE LECTURES.

The large audiences during the season of 1890-1 called the attention of the Committee to the inadequacy of many of the school assembly halls. Later in the same winter the Legislature again amended the free lecture act by providing that where there was not to be found suitable accommodation in the school buildings for persons desiring to attend the lectures the Board of Education might utilize other buildings, renting the same for the purpose.

The fourth course of lectures was given in 1891-2. One additional place had been added, making nine in all. The number of lectures given was 287, and the reported attendance was 122,243, an increase of 40,000 over the previous lecture season. The next year another centre was added, making ten in all. The attendance reports for 1892-3 show that 130,830 attended the lectures. It is also shown by a reference to the lists of subjects for that year that the Committee still adhered to the original plan of furnishing instruction to working men and working women in the "natural sciences and kindred subjects."

The first attempt, it appears, was made about this time to effect a correlation of subjects and the lectures were, to some extent, arranged in series. Writing in 1893,

Dr. Leipziger said: "In order to render the free lecture course more valuable, an extra course of lectures on the nature and prevention of cholera was given by well-known physicians. These lectures were delivered in English, German and Italian."

SUMMARY OF THE FIRST TEN YEARS.

The story of the growth of the free lecture idea from the period last referred to up to the year following consolidation may best be told in a few figures taken from the records of the Board of Education. They are as follows:

Course of 1893-4—383 lectures.	Attendance	170,368
Course of 1894-5—502 lectures.	Attendance	224,118
Course of 1895-6—1,040 lectures.	Attendance	392,733
Course of 1896-7—1,065 lectures.	Attendance	426,927
Course of 1897-8—1,595 lectures.	Attendance	509,571
Course of 1898-9—1,923 lectures.	Attendance	519,411

The number of lecture centres during the year ending May 1, 1899, is stated as 48, an increase of 38 over the number of lecture places in 1893. During the years 1897-8 and 1898-9 there had also been an extension of one month in the time covered by the lecture courses. Thus it will be seen that, prior to consolidation, there had been a great increase in the number of lecture centres and in the number of lectures given in the old City of New York.

The figures representing the cost of maintaining the lectures throughout the years mentioned are not readily obtainable in detail, but suffice it to say that the gross cost ranged from \$15,000 in 1889 to \$60,200 in 1899, which was the appropriation for that year. From this sum was paid the lecturers' fees, salaries of officials, printing, advertising, rent of halls, and illustration of lectures. Each centre was provided with a lecture outfit, which consists of a stereopticon lantern and screen.

With the increase in popularity of the free lectures, the disconnected manner of giving them was abandoned, and extensive courses were given. The instructional idea was also developed in many of the centres. This experiment was first made in St. Bartholomew's Hall in Manhattan on each Saturday night between October 1 and May 1. A lecture on physics was given, covering a course of twenty-nine lectures. Three professors of physics were procured for this course. An examination was held at the close of the series, and after each lecture critical questions were put to the lecturers by the auditors. Three lecturers were engaged in giving a course of five lectures on "First Aid to the Injured," and this instructional course is still continued, being now given generally throughout all the boroughs.

It was during the years from 1893 to 1899 that a considerable expansion took place in the range of subjects taken up by the lecturers. The Charter of the Greater City, which took effect in January, 1898, would seem to have given a legal impetus to this movement. The educational chapter of the new Charter included only a simple

reference to the free lecture bureau, but it is to be noticed that the language of the statute in regard to maintaining free lectures for "working men and working women" was changed, the law now providing (section 1069 of New Charter) for the maintenance of free lectures and courses of instruction for the "people" of The City of New York.

BROADENING OF THE COURSES.

In the list of lectures given during 1898-9 there appeared quite a number on literature, geography, art, history, and music. In some centres courses were given in practical exercises in singing, as well as courses on the Wagner music dramas. Commenting in 1899 on this apparent divergence from the scope of subjects contemplated in the original outline of the free lecture scheme, Dr. Leipziger wrote:

"The course was originally intended to give instruction in natural science and kindred topics, and in the arrangement of the lectures there is no neglect of what may be termed practical topics. A general grasp of the laws of mechanics, physics, and chemistry proves a stimulus to the inventive minds in our midst."

Summing up the results accomplished by the "Free Lectures," Dr. Leipziger then wrote:

1st. That adult education must hereafter form a permanent part of our educational scheme.

2d. That reading has been encouraged, a deeper interest in school life developed, and a refining influence spread.

3d. That co-operation has been brought about between the lecture, the library and the museum.

4th. That the best teachers in our universities have come in contact with the people.

COST OF LECTURES SINCE UNIFICATION OF THE BOROUGHES.

The following statement has been furnished by Mr. Henry R. M. Cook, Auditor of the Department of Education, showing the cost of maintenance of the Free Lecture Bureau for the years 1902 and 1903:

Statement of Expenditures on Account of Lecture Bureau, 1902 and 1903, from Special and General School Funds.

General School Fund—

	Account of 1902.	Account of 1903.
Salaries of Supervisor and		
Assistant Supervisor.....	\$5,455 31	\$7,166 56
Salaries of Lecturers.....	42,380 30	56,727 00
	<hr/> \$47,835 61	<hr/> \$63,893 56

Special School Fund—

Salaries of Local Superintendents, Operators, Janitors, etc.

\$24,645 26

\$31,406 17

Total payments for rent of halls, supplies and other miscellaneous charges against the lecture account..

42,698 82

35,620 46

\$67,344 08

\$67,026 63

Totals.....

\$115,179 69

\$130,920 19

This statement includes all claims audited to February 15, 1904.

FURTHER ANALYSIS OF THE FIGURES RELATING TO ATTENDANCE AT LECTURES AND COST,
1902 AND 1903.

Further data regarding the scope, attendance and cost of maintaining the free lecture courses in 1902 and 1903 were obtained from Dr. Leipziger, the Supervisor of the Lecture Bureau. These facts were furnished in response to questions submitted by the Investigations Division. The information obtained is as follows:

Number of Centres Where Lectures Were Given Under the Auspices of the Bureau.

	1902-'03	1903-'04
Manhattan and The Bronx.....	74	81
Brooklyn	32	34
Queens	16	22
Richmond	6	6
Totals.....	128	143

Number of Lectures Given in Years 1902 and 1903.

	1902	1903
Manhattan and The Bronx.....	2,357	2,741
Brooklyn	928	1,198
Queens	201	518
Richmond	80	178
Totals.....	3,566	*4,635

* The contemplated extension of the scientific courses, Dr. Leipziger said when conferring with your representatives about February 5 last, would increase the number of lectures to be given during the current season to almost 5,000.

Total Attendance by Boroughs for the Seasons 1901-'02 and 1902-'03.

	1901-'02	1902-'03
Manhattan and The Bronx.....	585,908	620,524
Brooklyn	302,612	390,794
Queens	23,132	144,560
Richmond	16,599	48,248
Totals.....	928,251	1,204,126

	1902	1903
Total expenditures for fees of lecturers (fees from \$10 to \$25 in special cases) 1902 and 1903.....	\$42,380 00	\$56,727 00
Expenditures for services of Superintendents of Lectures, at \$3 per session, 1902 and 1903.....	11,645 50	15,510 00
Expenditures for services of Stereopticon Operators (at \$5 per session) and other assistants, 1902 and 1903.....	6,141 00	11,080 50
Amounts paid to School Janitors for extra services at lectures, 1902 and 1903.....	5,228 00	6,390 00
Total expenditures for equipment of lecture centres (from Special Fund)	13,574 79	*8,076 30

* All claims against 1903 account not yet passed to payment.

Amount Paid for Rent of Halls, by Boroughs, 1902 and 1903.

	1902	1903
Manhattan	\$6,640 00	\$6,112 00
The Bronx	280 00	1,005 00
Brooklyn	2,428 00	2,556 00
Queens	610 00	1,040 00
Richmond	220 00	476 00
Totals.....	\$10,178 00	\$11,189 00

	1902	1903
Amounts expended, 1902 and 1903, for rentals of pianos.....	\$145 00	\$404 00

\$11,189 EXPENDED FOR RENT OF HALLS.

Since the enactment of the amendment to the Free Lectures Act of 1891, empowering the Board of Education to rent, for lecture purposes, public halls and other places in localities where assembly-room accommodations in the public school buildings are unsuitable or inadequate, there has been a steady increase in the expenditures for rent. The total disbursements for this item in 1902, as shown above, were \$10,178, and \$11,189 in 1903. The names, location and rentals of halls privately owned and now rented by the Department of Education for lecture purposes are given below:

Borough of Manhattan.

	Per Night.
Amity House, No. 312 West Fifty-fourth street.....	\$4 00
2. Columbus Hall, Sixtieth street, between Columbus and Amsterdam avenues.....	20 00
Cooper Institute, Eighth street and Fourth avenue.....	25 00
2. Educational Alliance, East Broadway and Jefferson street.....	20 00
2. Institute Hall, No. 218 East One Hundred and Sixth street.....	20 00
West Side Auditorium, No. 318 West Fifty-seventh street.....	20 00
2. Y. M. C. A. Hall, No. 5 West One Hundred and Twenty-fifth street.....	20 00
Young Men's Institute, No. 222 Bowery.....	10 00

Borough of The Bronx.

	Per Night.
2. Lafayette Hall, Alexander avenue and One Hundred and Thirty-seventh street.....	\$17 50
Realty Hall, Ogden and Merriam avenues, High Bridge.....	10 00

Borough of Brooklyn.

	Per Night.
Andrew Jackson Hall, Kent avenue, near Myrtle avenue.....	\$10 00
Canarsie M. P. Church, East Ninety-second street and Church lane.....	10 00
Harms' Hall, Rockaway avenue and Avenue F.....	5 00
Institute Hall, Jay, near York street.....	10 00
McCaddin Hall, Berry, near South Third street.....	20 00
St. Anne's Hall, Front and Gold streets.....	10 00
St. Vincent's Hall, North Sixth street, near Bedford avenue.....	12 00
Visitation Hall, Tremont street, between Richards and Van Brunt streets..	10 00

Borough of Queens.

	Per Night
Astoria Assembly Rooms, No. 50 Flushing avenue, Astoria, L. I.....	\$15 00
Long Island City Turn Hall, No. 345 Steinway avenue, Long Island City....	10 00
St. Mary's Lyceum Hall, No. 117 Fifth street, Long Island City.....	20 00

Borough of Richmond.

	Per Night.
Curry's Hall, New Dorp, S. I.....	\$7 00
Knights of Pythias Hall, Tottenville, S. I.....	10 00

Where the figure 2 occurs it means that the hall is used twice weekly.

COST OF THE LECTURES DURING THE LAST FIVE YEARS.

Prior to 1900, it was learned from Supervisor Leipziger, lectures were given only in the boroughs of Manhattan and The Bronx. Under the direction of the School Board of the Borough of Brooklyn lectures were given in that borough in 1900 and 1901. In February 1902, when the Borough School Boards were consolidated in the Board of Education, provision was made for lectures to be given in all the boroughs.

In preparing this statement it has been found comparatively difficult to secure figures representing the actual disbursements in the several boroughs for lectures or any such special department for the years prior to 1902. For that reason the estimates furnished by the Board of Education for the purposes of the annual budget are used.

On page 1216 of the minutes of the Board of Education for the year 1899 the estimate for the year 1900 for lectures in the Borough of Brooklyn is shown to be \$20,000 in the General Fund, with an additional allowance of \$5,000 for books, to be taken from the Special Fund.

Page 1178 of the minutes of 1899 shows an estimate of \$76,000 for lectures in the boroughs of Manhattan and The Bronx for the year 1900 from the General Fund. The year 1901, page 1497 of the minutes of 1900, shows an allowance for lectures from the Special Fund, Manhattan and The Bronx, of \$87,000; Brooklyn, \$15,000; Queens, \$13,680; Richmond, \$1,800.

For the years 1902, 1903 and 1904 the following tabulation was prepared from the estimates of the Department of Education transmitted to the Board of Estimate and Apportionment:

ESTIMATES OF DEPARTMENT OF EDUCATION FOR LECTURE BUREAU EXPENSES, 1902, 1903 AND 1904.

General Fund.

	Manhattan and Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
1902	\$29,000 00	\$27,900 00	\$2,000 00	\$800 00	\$59,700 00
1903	43,500 00	27,000 00	7,500 00	3,000 00	81,000 00
1904 *	43,500 00	27,000 00	7,500 00	3,000 00	81,000 00

Special Fund.

	Manhattan and Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
1902	\$52,500 00	\$23,100 00	\$4,750 00	\$2,500 00	\$82,850 00
1903	47,800 00	21,750 00	9,900 00	3,250 00	82,700 00
1904 *	47,300 00	21,600 00	10,700 00	3,100 00	82,700 00

* These figures indicate the amounts asked for in departmental estimate.

	General Fund.	Special Fund.	Grand Total.
1902	\$59,700 00	\$82,850 00	\$142,550 00
1903	81,000 00	82,700 00	163,700 00
1904 *	81,000 00	82,700 00	163,700 00

* These figures indicate the amounts asked for in departmental estimate.

It will be seen that, while the total amount asked for and allowed in 1902 for all boroughs from both the General and Special Funds was \$142,550, \$163,700 was asked for in 1904, this being the same as the amount allowed in 1903.

Your Examiners have been informed that since the action of the Board of Estimate and Apportionment, reducing the amount asked for by the Board of Education for all purposes for the year 1904, the Special Committee on Economy of the Board of Education has reduced the amount available from the General Fund for the purposes of the Lecture Bureau from \$81,000 to \$60,000, thereby cutting off \$21,000.

Supervisor Leipziger, commenting on the action of the committee in reducing the amount available for the General Fund, stated that, inasmuch as the fifteen lecture

In the first course of the 1904-5 season, from October to December, 1904, inclusive, however, it is possible that reductions can be made in the number of lectures, thus reducing the expenditures for fees of lecturers, operators, janitors, rentals, etc.

GENERAL VIEW OF THE LECTURES FOR ALL BOROUGHS AS NOW BEING GIVEN.

The lecture course of each year is divided into three parts, the first extending from October to December, inclusive, the second through January and February, and the third through March and April.

A comprehensive idea of the different subjects included in the several courses may be gathered from an examination of the lists issued by the Lecture Bureau. An analysis of said lists for 1903-4, made for the purposes of this report, and showing the distribution of lectures among the different boroughs, is hereto attached and marked centres that had been added last fall would have to be continued during the balance of this season, or until April 30, there could be no economy in that direction, but that curtailment would probably be made in the Sunday lectures and also in the purchase of supplies, equipment, etc.

Schedule "A."

Following is a recapitulation grouping the listed lectures of 1903-4 for the entire City under heads, each comprising those of a more or less cognate character, and showing the cost of each group as calculated on an assumed basis of \$30 per lecture. The average cash disbursement has heretofore exceeded that sum for each lecture,

but, as equipments have now been very generally provided, it is believed that the average cost for the current year will not exceed the amount here assumed:

RECAPITULATION.

Group.	Number of Lectures.	Approximate Cost, Estimated at \$30 Per Lecture.
Geography, Descriptive (Travel).....	1,720	\$51,600 00
History and Biography.....	479	14,370 00
Music	474	14,220 00
Literature	406	12,180 00
Physiology and Hygiene.....	294	8,820 00
Natural Science (Miscellaneous)	262	7,860 00
Sociology, Biology and Anthropology.....	222	6,660 00
Astronomy, Chemistry and Physics.....	146	4,380 00
Art and Architecture.....	128	3,840 00
Electricity	97	2,910 00
Industries	91	2,730 00
Geography, Commercial	47	1,410 00
Education'	28	840 00
Metallurgy	12	360 00
Domestic Science (Cooking)	8	240 00
	4,414	\$132,420 00

It may be noticed that somewhat more than one-third of the number of lectures included in the courses for the current season consists of lectures on descriptive geography. Many of these would seem, from their titles, to be devoted to the description of travels. This is mentioned merely to indicate how the original scope of the lecture scheme has been expanded.

The law of 1888 authorized lectures on the "natural sciences and kindred subjects" for "the benefit of working men and working women." It now authorizes the maintenance of "free lectures and courses of instruction for the people of The City of New York." What those lectures and what that instruction shall be is left to the wisdom of the Board of Education. If attendance upon the lectures is to be taken as an indication it would seem that the judgment of those in charge of the Lecture Bureau has so far met with the approval of the people.

Yours respectfully,

R. B. McINTYRE,
Examiner in Charge, Investigations Division.

SCHEDULE

*An Analysis of the Lists of Free Lectures Announced to be Given Under the Auspice
Season of 1903-4, the Same*

Topics.	—First Course, Oct. to Dec., Inclusive.—					Total, First Course.
	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.	
Art	37	6	..	..	..	43
Art and Architecture.....	..	..	9	..	..	9
Astronomy	6	6	9	2	..	23
Anthropology .....	..	..	6	..	..	6
Biography—American History	27	..	10	2	..	39
Biography—General History	22	5	..	..	..	27
Biology	23	..	..	..	..	23
Chemistry .....	..	..	8	..	..	8
Commercial Geography	12	3	8	6	..	29
Domestic Science (Cookery) .....	..	..	..	..	..	..
Descriptive Geography, North America.....	104	37	66	56	6	269
Descriptive Geography, Central America.....	17	1	16	8	2	44
Descriptive Geography, South America.....	15	4	10	8	4	41
Descriptive Geography, Europe	98	31	52	42	6	229
Descriptive Geography, Asia	34	7	21	13	4	79
Descriptive Geography, Africa	8	5	13	3	2	31
Education	2	..	..	..	..	2
Electricity	11	10	23	..	..	44
History—General	12	10	..	..	..	22
History—American	47	16	13	31	..	107
History—United States .....	..	..	15	..	..	15
Industries	11	10	5	5	5	36
Literature	69	21	55	21	17	183
Metallurgy	6	..	..	..	..	6
Music	110	29	47	17	12	215
Natural Science (Miscellaneous)	23	12	38	5	..	78
Physics	29	..	1	..	..	30
Physiology and Hygiene.....	9	27	36	10	11	93
Sociology	39	5	10	..	..	54
Totals.....	771	245	471	229	69	1,785

"A."

ces of the Department of Education in the Several Boroughs of the City During the Being Divided Into Topics.

—Second Course, Jan. and Feb.—						—Third Course, March and April.—						Total Number on Each Topic For the Five Boroughs.	Cost for Each at \$30 Per Lecture.
Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.	Total, Second Course.	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.	Total, Third Course.		
17	..	..	12	4	33	..	..	12	4	..	16	92	\$2,760 00
..	11	16	..	..	27	..	..	..	..	..	..	36	1,080 00
3	..	14	..	..	17	10	..	..	..	..	10	50	1,500 00
..	..	..	..	..	..	..	..	..	..	..	..	6	180 00
11	..	13	4	8	36	18	11	12	8	..	49	124	3,720 00
7	4	..	..	..	11	10	3	..	..	..	13	51	1,530 00
8	..	..	..	..	8	8	..	..	..	..	8	39	1,170 00
8	..	..	..	..	8	..	..	..	..	..	..	16	480 00
7	..	..	..	..	7	6	5	..	..	..	11	47	1,410 00
8	..	..	..	..	8	..	..	..	..	..	..	8	240 00
80	14	35	17	4	150	76	37	25	24	4	166	585	17,550 00
13	..	17	..	..	30	7	..	..	..	..	7	81	2,430 00
11	9	8	28	..	56	12	4	15	12	4	47	144	4,320 00
76	20	25	21	16	158	66	13	30	12	9	130	517	15,510 00
66	12	30	16	..	124	35	11	26	22	7	101	304	9,120 00
11	..	12	1	..	24	15	3	9	6	1	34	89	2,670 00
8	..	..	..	..	8	18	..	..	..	..	18	28	840 00
15	9	11	..	..	35	18	..	..	..	..	18	97	2,910 00
10	..	..	8	..	18	..	..	6	..	..	6	46	1,380 00
28	29	19	8	..	84	7	13	16	16	..	52	243	7,290 00
..	..	..	..	..	..	..	..	..	..	..	..	15	450 00
25	3	..	..	..	28	3	7	8	6	3	27	91	2,730 00
72	11	37	20	4	144	51	..	20	8	..	79	406	12,180 00
6	..	..	..	..	6	..	..	..	..	..	..	12	360 00
57	25	31	20	8	141	49	12	37	12	8	118	474	14,220 00
29	20	26	12	..	87	31	16	31	10	9	97	262	7,860 00
28	..	6	..	..	34	8	..	8	..	..	16	80	2,400 00
13	17	44	12	4	90	43	..	27	37	4	111	294	8,820 00
35	6	15	..	..	56	48	10	9	..	..	67	177	5,310 00
652	190	359	179	48	1,428	539	145	291	177	49	1,201	4,414	\$132,420 00

Number of lectures announced for Manhattan...	1,962, at \$30 per lecture.	\$58,860 00
Number of lectures announced for The Bronx...	580, at \$30 per lecture.	17,400 00
Number of lectures announced for Brooklyn....	1,121, at \$30 per lecture.	33,630 00
Number of lectures announced for Queens.....	585, at \$30 per lecture.	17,550 00
Number of lectures announced for Richmond...	166, at \$30 per lecture.	4,980 00
<hr/>		<hr/>
Total.....	4,414	\$132,420 00
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REPORT No. 13.

Evening Recreation Centres Maintained by the Board of Education Suffer from too Costly and too Elaborate Supervision—Expert Teachers Employed to Superintend the Play of Children—Large Economy Practicable in this Branch of School Work.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions to investigate the system of Evening Recreation Centres, which is now maintained by the Board of Education, from the viewpoint of possible economies, I beg to submit the following report:

Within the last six years the Board of Education has embarked upon an elaborate scheme for supplying the children of the City with recreation. About seventy-five thousand dollars is being spent on evening recreation centres alone this year, not to speak of vacation schools, vacation playgrounds, swimming schools, recreation piers, summer roof gardens, and games and play in the day schools.

An evening recreation centre is a school of games and amusements. It is held in a public school building, and occupies the basement and one or two rooms on the first floor. Some of these centres are for boys and some for girls, but both sexes never attend the same school. The sessions begin at 7.30 in the evening and close at 10, and the centres are open every day except Sundays and legal holidays, from the 15th of September to the 15th of June. In these centres pupils come and go as they please, and for this reason the figures compiled by the Department of Education to show the attendance are very misleading. Three or four hundred pupils may be registered at a given centre on a particular evening, while only a small proportion of them are actually present at any one time. As the recreation centres are intended for young people who work during the day time, children under fourteen are supposed to be excluded, though many pupils under this age attend. Two of the centres are held in the afternoon between half-past three and six o'clock, and their attendance is made up almost entirely of day school pupils ranging from eight to fourteen years of age.

An evening recreation centre has five main features:

1. Gymnastics and athletic sports.
2. Quiet games.
3. Literary and social clubs.
4. Library books.
5. A room for study.

THE GYMNASIUM.

Games and amusements constitute the main features of an evening recreation centre. The basement of the school building in which a centre is held is divided into two parts by folding doors, one part being used for quiet games and the other for gymnastics and athletic sports. In a boys' centre basket ball is the favorite amusement in the gymnasium, although horizontal bars, parallel bars and other apparatus are used freely. The gymnasium is in charge of a gymnast, who directs the sports and gives more or less formal instruction in gymnastics. The boys or girls are organized into clubs, and each club is given the exclusive use of the gymnasium for a specified time on one or more evenings of the week. In the girls' centres, in addition to a teacher of gymnastics, a pianist is provided, and the girls take simple gymnastic exercises to music. During the last half hour of each session they are allowed to dance.

The following inventory of the apparatus found in one of the gymnasiums is a fair sample of the equipment provided for a recreation centre:

- 1 horizontal ladder.
- 1 horizontal bar.
- 1 parallel bar.
- 1 jumping standard.
- 2 bucks.
- 3 mats.
- 2 basket ball goals.
- 1 basket ball.
- 48 Indian clubs.
- 48 dumb-bells.
- 24 wands.
- 1 side horse.

THE GAME-ROOM.

The game-room, which is in charge of a teacher officially designated as librarian, is supplied with tables and chairs, a ping-pong outfit, checkers, chess and other quiet games. The teacher, who is usually a woman, gives out the materials for the games and has oversight of the children while they play. She usually registers the attendance and, inasmuch as the same boy may come and go several times during one evening, this is no small task. It is not the intention, of course, to count the same boy more than once, although it is often done.

The following list of the games found in one of the centres serves to indicate the equipment provided for a game-room:

Nations	9 games
Literature	21 games
American Battles	34 games
Authors	22 games
Geography	14 games

Dominoes	6 games
Lotto	6 games
Checkers	80 games
Halma	6 games
Halma boards	6
Crokinole boards	2
Chess boards	12
Chess games	8 games

THE CLUBS.

An important feature of a recreation centre is the organization of the young people into clubs, some of which are literary and others athletic or merely social. Such clubs meet once or twice a week in a room provided for the purpose, and are under the supervision of a teacher who is called a club director. In a literary club various topics of a literary nature are presented by the pupils, and the club director usually gives a short reading or a talk. The meetings of the athletic clubs are largely for the transaction of such business matters as may come up in connection with their sports in the gymnasium. A club meeting is limited to one hour, so that two clubs may use the same room on a given evening. In some of the larger centres the clubs are so numerous that several rooms are required, but in most cases one room more than suffices. In visiting the centres it is not unusual to find a club director who has only one club to look after during the evening or perhaps none at all. In most of the centres it is difficult to sustain interest in literary work, and the attendance in such clubs tends to drop off as soon as the novelty wears away. The young people who patronize the recreation centres seem to fight shy of anything which savors of work. They are seeking recreation, not education.

LIBRARY BOOKS.

Each recreation centre has a small collection of books supplied by the traveling department of the New York Public Library, and the "latest papers and magazines" supplied by the Board of Education. These books and papers are kept in the game-room, and are in charge of the teacher in that department. It is rare to find boys reading in a recreation centre, although it is possible that the books are used more than would appear, as in some of the centres boys and girls are allowed to take them home. It is probably true that when young people want to read they go to a public library, rather than to a recreation centre.

THE STUDY-ROOM.

One of the features recently added to a recreation centre is the study-room which is provided for boys and girls who wish to engage in quiet work. This room is in charge of a skilled teacher, and assistance is proffered in all subjects from the first reader and the multiplication table to geometry and Greek. Most of the boys found

in these study-rooms are either high school or City College boys, who are under the care of teachers all day long and who are supposed to prepare their work at home without assistance, although in several places young men were found preparing for Civil Service examinations. The study-room feature has been a failure in most of the centres in which it has been tried. There does not seem to be a demand for such a department in a recreation centre. It may be a good thing to furnish a well-lighted room where young people who are without such advantage at home may have an opportunity for quiet study, but it seems a piece of extravagance to hire a college graduate to superintend them while they work, especially when investigation shows that there are seldom more than eight or ten boys in any study-room at one time. The tendency in the school system is to help children too much. They should be taught to help themselves.

NUMBER AND LOCATION OF EVENING RECREATION CENTRES.

At present there are nineteen evening recreation centres in the Borough of Manhattan and four in the Borough of Brooklyn, fourteen of which are for "men and boys" and nine for "women and girls." They are located as follows:

FOR MEN AND BOYS.

Manhattan.

Public School 1—No. 8 Henry street.

Public School 8—No. 29 King street.

Public School 16—No. 208 West Thirteenth street.

Public School 20—Forsyth and Rivington streets.

Public School 40—Thirty-seventh street, near Second avenue. Saturday afternoons.

Public School 94—Sixty-sixth street and Amsterdam avenue.

Public School 105—No. 269 East Fourth street.

Public School 147—East Broadway and Scammel street.

Public School 169—One Hundred and Nineteenth street, near Third avenue.

Public School 160—Rivington street, near Suffolk.

Public School 172—One Hundred and Eighth street, near Second avenue.

Public School 179—No. 140 West One Hundred and Second street.

Brooklyn.

Public School 29—Columbia and Amity streets.

Public School 117—Stagg street, near Bushwick avenue.

FOR WOMEN AND GIRLS.

Manhattan.

Public School 42—Hester and Orchard streets.

Public School 78—One Hundred and Nineteenth street and Pleasant avenue.

Public School 109—Ninety-ninth street, near Third avenue.

Public School 158—Avenue A, between Seventy-seventh and Seventy-eighth streets.

Public School 168—One Hundred and Fifth street, near Second avenue.

Public School 174—No. 125 Attorney street.

Public School 177—Market and Monroe streets.

Brooklyn.

Public School 53—Starr street, near Central avenue.

Public School 125—Blake, between Rockaway and Thatford avenues.

HISTORY OF THE EVENING RECREATION CENTRES.

The evening recreation centres are a part of that branch of the public school system of the City embraced under the general head of vacation schools and playgrounds. Vacation or summer schools had been provided in certain districts of Manhattan and The Bronx, as well as of Brooklyn, for some years prior to the grant of any express authority for their maintenance as a part of the public school system.

As early as in 1894 such schools were conducted in public school buildings by the "New York Association for Improving the Condition of the Poor." It is interesting to note that in vacation schools, as well as in kindergartens, manual training and most other educational developments, the work was first started as charity and afterwards taken over by the educational authorities and incorporated into the public school system.

In May, 1897, it was resolved by the Board of Superintendents of The City of New York—

"That it is the sense of the Board of Superintendents that the Board of Education would render a considerable service to the cause of education by establishing a system of vacation schools for children."

"That it is the sense of the Board of Superintendents that the school-houses may well be used in the cause of education as neighborhood centres, providing reading-rooms, branch offices of public libraries, etc., under the charge of custodians, under such restrictions and rules and regulations as the Board of Education may establish."

Section 1055 of the Greater New York Charter was so amended by chapter 652 of the Laws of 1898 as to provide that the school-houses should be under the control of the Board of Education for the purposes of "recreation and other public uses." Following upon this, the Board, on July 15, 1898, adopted the following resolution:

"That under and in pursuance of the provisions of the amendment to section 1055 of the Charter, authorizing the use of school buildings for purposes of recreation, the following school buildings and school premises are hereby designated to be used for purposes of recreation during the vacation months, the expenses made necessary by this action to be paid from funds now at the disposal of the Board and to be charged to the accounts appropriate in the circumstances."

A plan for opening and conducting playgrounds was adopted June 29, 1898. Including three conducted on piers and three under tents, there were some thirty playgrounds maintained during the summer of 1898, at a cost of \$14,596.68, and with an estimated attendance of more than thirty thousand children.

What are known as evening recreation centres were added the following year and have since been conducted as a feature of the public school system of the City. Section 1069 of the Revised Charter gave for the first time express authority for the maintenance of this branch of public school work. The Charter provides that the Board of Education shall, in addition to the other powers expressly conferred, have power to "establish and conduct playgrounds in connection with the public schools."

During the summer of 1899 playgrounds were kept open with such success that it was deemed advisable to continue them during the remainder of the year. The report of the City Superintendent of Schools for the year ending July 31, 1900, contains the following report from Borough Superintendent Jasper concerning the work conducted in these playgrounds:

"The playgrounds of thirty school buildings were thrown open during the vacation of 1900 for the accommodation of children at play. Each of these was provided with a kindergartner to direct the play of the smallest children, and gymnasium and other instructors to help the older children. Each playground had its centre and reading room, which was also used for quiet games, such as checkers, crokinole, etc. A number of these play centres were open during the evening from seven to ten. Five of the evening play centres remained open during the entire school year, 1899-1900."

In 1900-1901 there were eight evening recreation centres. In 1901-1902 the number had increased to twelve. In 1902-1903 twenty-one centres were maintained, and during the current year, as already stated, there are twenty-three centres in operation.

QUALIFICATIONS OF RECREATION CENTRE TEACHERS.

To be eligible for appointment as a teacher in an evening recreation centre, one must pass a satisfactory examination and be duly licensed by the Board of Examiners of the Department of Education. The qualifications for eligibility for the several licenses are as follows:

Principal—

One of the following:

- (a) Graduation from a college and one year's successful experience in teaching or supervision.
- (b) Possession of one of the qualifications required for eligibility for License No. 1, or for a higher license, with four years' experience in teaching.

Teacher—

One of the following:

- (a) The completion of three years' undergraduate study in college.
- (b) The completion of one year's course in the theory and practice of physical training.
- (c) One year's satisfactory experience as Assistant Teacher in recreation centres, or satisfactory experience for two seasons in vacation playgrounds.

Assistant Teacher—

One of the following:

- (a) The holding of a license as Substitute Teacher, or the possession of the qualifications for such license or for higher licenses.
- (b) Successful experience as Assistant Teacher for a summer period of at least six weeks in public vacation playgrounds in New York City.
- (c) Successful experience as Junior Assistant for a period of at least one year in New York City recreation centres.

Junior Assistant—

One of the following:

- (a) The pursuit of undergraduate study in college for at least two years, provided the applicant has attained the age of twenty and evidences special aptitude for the direction of children at play.
- (b) Satisfactory experience as Assistant in an organized play centre or club.

Librarian—

One of the following:

- (a) Graduation from a college.
- (b) One year's satisfactory experience as Librarian, or in lieu of such experience the completion of a course of one year in library economy.

Pianist—

One of the following:

- (a) Completion of a satisfactory course in piano playing.
- (b) One year's satisfactory experience in piano teaching.

SALARIES OF RECREATION CENTRE TEACHERS.

The schedule of salaries for these positions is as follows:

Principal, per night	\$4 00
Teacher, per night	2 50
Assistant teacher, per night.....	1 50
Junior assistant teacher, per night.....	1 00
Librarian, per night	2 50
Pianist, per night	2 00

The evening recreation centres were open 225 nights during the school year of 1902-1903, or an average of twenty-five nights per month. On this basis the salaries per month are as follows:

	Per Month.
Principal	\$100 00
Teacher	62 50
Assistant teacher	37 50
Junior assistant teacher	25 00
Librarian	62 50
Pianist	40 00

The majority of teachers employed in the evening recreation centres are students who are using this work as a means of meeting their expenses while in school. A number of the principals are law students at Columbia or elsewhere. When the hours

of work and the duties of a teacher in an evening recreation centre are taken into consideration, it will be seen that the salaries paid for such work are higher in proportion than those received by regular teachers in the day schools. In fact, to all appearances, the work in the evening recreation centres is less strenuous than that in any other part of the school system. In visiting these centres it is not unusual to find a study room teacher superintending eight or ten high school boys while they prepare their lessons for the following day, or a teacher of games watching a dozen little fellows play checkers or dominoes. For this work they usually receive \$2.50 per night.

COST OF THE EVENING RECREATION CENTRES.

The amount paid for teachers' salaries in the evening recreation centres during the nine months' term ending in June, 1903, was \$44,118.29.

The official estimate of the Department of Education for the year 1904, transmitted to the Comptroller by the Secretary of the Board of Education, under date of September 19, 1903, contains the following estimate for the salaries of teachers in evening recreation centres:

11 Principals	313 nights, at \$4 00 per night,	\$13,778 00
59 Teachers	313 nights, at 2 50 per night,	46,167 50
19 Librarians	313 nights, at 2 50 per night,	14,867 50
8 Assistant teachers	313 nights, at 1 50 per night,	3,756 00
9 Pianists	313 nights, at 2 00 per night,	5,634 00
3 Teachers of swimming.....	313 nights, at 2 00 per night,	1,878 00
Total		<u>\$86,075 00</u>

This estimate is evidently incorrect. It is based upon a twelve months' term instead of upon a nine months' term, and consequently is about \$24,000 too large. My understanding is that it was made by some one who was not aware that the evening recreation centres had been closed on the 15th of the previous June, and that the term had been reduced from twelve months to nine. As the total number of evenings during which the recreation centres were open in 1903 was 225 nights, or an average of 25 nights per month for nine months, the estimate evidently should have been as follows:

11 Principals	225 nights, at \$4 00 per night,	\$9,900 00
59 Teachers	225 nights, at 2 50 per night,	33,187 50
19 Librarians	225 nights, at 2 50 per night,	10,687 50
8 Assistant teachers	225 nights, at 1 50 per night,	2,700 00
9 Pianists	225 nights, at 2 00 per night,	4,050 00
3 Teachers of swimming.....	225 nights, at 2 00 per night,	1,350 00
Total		<u>\$61,875 00</u>

The actual amount paid for teachers' salaries in the evening recreation centres from September to March, inclusive, during the current school year is as follows:

September	\$3,045 00
October	6,330 15
November	5,622 55
December	5,685 30
January	5,817 00
February	5,646 50
March	6,568 00
<hr/>	
Total	\$38,718 50
<hr/>	

On this basis the expenditures for teachers' salaries for the entire term ending in June will approximate \$54,000.

In addition to the teachers in the centres there are three supervisory officers—a District Superintendent at Large, who has charge of the recreation centres, vacation schools and playgrounds, at a salary of \$5,000 per year, and two Inspectors of Playgrounds and Evening Recreation Centres, at \$1,500 each per year. It is to be noted that these supervisors do not devote their entire time to the recreation centres. They have charge of the vacation schools and playgrounds as well.

With one exception, janitors in school buildings in which evening recreation centres are held receive \$2.50 per night each as an extra compensation for the additional services rendered. As there are 23 centres, 22 of which are open 225 (1903) nights in the year, this item alone approximates \$12,000 per year.

There is also to be considered the cost of supplies and the heating and the lighting of the buildings. The amount paid for supplies for evening recreation centres for the school year of 1902-3 was \$4,192.50.

ESTIMATED COST OF RECREATION CENTRES FOR SCHOOL YEAR 1903-1904.

Salaries of teachers.....	\$54,000 00
Salary of superintendent in charge of recreation centres, vacation schools and playgrounds	5,000 00
Salaries of two inspectors of playgrounds and evening recreation centres	
Expenditures for supplies (1903)	\$4,192 00
Janitor services	18,000 00
<hr/>	

Heating and lighting buildings not estimated.

It will be seen from this that the cost of the evening recreation centres for the school year of 1903-1904 will approximate \$75,000.00.

AN EXTRAVAGANT SYSTEM.

On page 187 of the annual report for the year ending July 31, 1903, Superintendent William M. Maxwell says concerning the cost of the recreation centres:

"Certain schools in the boroughs of Manhattan and Brooklyn were thrown open throughout the year to the young people of the neighborhood for purposes of reading and recreation, under the care of specially selected supervisors. The average attendance in these schools, which were called recreation centres, was, last year, 6,154. The total cost was \$56,934. The cost per capita therefore was \$9.24. While the cost per capita for the pupils in average attendance is still too high, it is satisfactory to find that it has been reduced forty cents per pupil from what it was last year, and \$9.91 from what it was the year before."

On pages 187-189 of the same report, Miss Evangeline E. Whitney, District Superintendent in charge of recreation centres, vacation schools and playgrounds, shows that the average attendance in the recreation centres for the same year was 5,925. Under date of February 2, 1904, in reply to a letter of inquiry from the Finance Department, Miss Whitney says: "In 1903 there were 25 evening recreation centres, with a nightly average attendance of 5,925."

There seems to be a difference of opinion among the authorities as to what the average attendance in the recreation centres actually was during the year 1903. On the basis of Miss Whitney's figures, the per capita cost for the year was \$9.59. On the basis of Superintendent Maxwell's figures the per capita cost was \$9.24. In either case the cost was altogether too great.

The largest item in the cost of the evening recreation centres is the amount paid for teachers' salaries, and there is unnecessary expense in this direction. More teachers are provided than are necessary. This is especially true during the spring months, when the attendance drops off. In the recreation centres, as elsewhere in the school system, there is too much supervision. Recreation does not flourish under excessive management. The centres are too much like schools to achieve full success. A recreation centre is not intended for a school, and to turn it into one is to defeat its purpose.

According to official figures, during the school year ending 1903, 108 teachers were provided for an average attendance of 5,925 pupils. This is an average of 55 pupils per teacher. When it is remembered that these 55 pupils come and go during the evenings in such a way that only a small portion of them are present at any one time, it becomes plain that more teachers are provided than are needed. The fact is, on an average, a teacher in a recreation centre is paid from sixty to one hundred dollars per month for directing the play of a handful of children from 7.30 to 10 o'clock in the evening.

IS THE TERM TOO LONG?

Another feature which helps to make the recreation centres unduly expensive is the fact that many of them are kept open when the attendance does not justify it. As already stated, when these centres were first started they were kept open during the entire year, but in 1903 it was decided to close them on the 15th of June and not

reopen them until the following September. It now appears that the attendance hardly justifies this length of term. It should probably be reduced from nine months to six.

The following table, compiled from the official records, shows the average attendance in each of the recreation centres for each month from January, 1903, to February, 1904, inclusive. An examination of these figures discloses that the majority of the centres are kept open more months during the year than the present attendance justifies. Many, if not all, of them should not be opened until October or November, instead of September, and should be closed in April instead of June. Boys and girls prefer to be out of doors in warm weather, and, although they may be enticed into recreation centres, they do not remain there for any length of time.

Visits to a majority of the centres during March and April of the current year revealed an actual attendance that was very small in comparison with these figures, and that could not be made to justify the number of teachers in attendance.

As stated before, these formidable figures, compiled by the Department of Education to show the attendance at the recreation centres do not mean much. Different methods of counting the attendance are in use in different centres, and they are all so inaccurate that the figures set up are largely guess-work. Because of the constant coming and going, it is very difficult to register the attendance accurately, and, even if it were done, the figures would still be misleading, because the whole number present during an entire evening, which is used as the basis for computing the average attendance, is so much in excess of the average number actually present at any one time.

Average Monthly Attendance

Name and Location.

MEN AND BOYS.

Manhattan.

Public School 1, No. 8 Henry street.....	
Public School 8, No. 29 King street.....	
Public School 16, No. 208 West Thirteenth street.....	
Public School 20, Forsyth and Rivington.....	
Public School 49, Thirty-seventh street and Second avenue.....	
Public School 94, Sixty-eighth and Amsterdam avenue.....	
Public School 105, No. 269 East Fourth street.....	
Public School 147, East Broadway and Scammel.....	
Public School 159, One Hundred and Nineteenth street and Second avenue.....	
Public School 160, Rivington, near Suffolk.....	
Public School 172, One Hundred and Eighth street and Second avenue.....	
Public School 179, No. 140 West One Hundred and Second street.....	

Brooklyn.

Public School 29, Columbia and Amity streets.....	
Public School 117, Stagg, near Bushwick.....	

WOMEN AND GIRLS.

Manhattan.

Public School 42, Hester and Orchard streets.....	
Public School 78, One Hundred and Nineteenth and Pleasant.....	
Public School 109, Ninety-ninth street and Third avenue.....	
Public Schools 53 and 158, Avenue A, Seventy-seventh and Seventy-eighth.....	
Public School 168, One Hundred and Fifth street and Second avenue.....	
Public School 174, No. 125 Attorney street.....	
Public School 177, Market and Monroe.....	

* Transferred to 158.

Brooklyn.

Public School 53, Starr street and Centre.....	
Public School 125, Blake street, between Rockaway and Thatford avenues.....	

at Evening Recreation Centres.

Jan.	Feb.	Mar.	Apr.	1903		June.	Sept.	Oct.	Nov.	Dec.	1904	
				May.	June.						Jan.	Feb.
529	519	494	466	516	463	486	523	482	460	494	479	
425	330	170	192	191	170	164	325	451	337	382	371	
49	48	43	40	52	64	72	89	144	148	171	169	
715	592	517	445	363	326	307	361	442	402	395	404	
97	110	100	126	110	76	....	....	194	156	156	182	
319	274	337	190	222	188	184	139	161	161	193	173	
497	433	428	341	391	376	147	246	243	233	280	254	
592	562	507	453	512	557	514	646	629	620	606	623	
....	....	....	....	....	....	....	....	218	328	323	253	
507	419	514	479	497	544	301	493	466	523	493	459	
410	368	320	290	232	238	252	269	273	500	303	321	
308	261	257	203	142	212	238	206	212	224	200	234	
....	....	....	....	....	....	73	66	70	66	79	72	
367	308	345	318	283	260	616	417	465	447	481	454	
244	252	247	227	249	256	175	272	306	277	286	259	
148	121	127	127	158	156	95	114	120	176	128	117	
180	159	136	160	163	220	143	151	163	163	160	161	
112	119	135	151	143	147	155	149	126	108	103	133	
268	250	197	205	290	190	144	140	141	126	140	130	
391	376	376	323	386	547	215	271	334	301	281	262	
270	207	242	250	278	278	195	238	267	266	283	272	
293	147	152	186	214	204	99	101	117	169	120	177	
228	211	251	158	250	304	214	188	201	227	221	215	

UNNECESSARY TEACHERS.

It will be noted that in evening recreation centre No. 16 (No. 208 West Thirteenth street) the average attendance was 49 in January, 1903, 48 in February, 43 in March and 40 in April. An investigation of this centre during March and April, 1904, led to the belief that it should not be maintained at all. At no time during either visit, one of which was in the early part of the evening, and the other in the latter part of the evening, were there more than 29 boys in attendance. This centre is located in a section of the City where most of the boys who attend come from good, middle-class homes. The work in the gymnasium practically amounts to furnishing the privileges of a private club to the sons of well-to-do parents. If this centre is continued the services of the librarian should be dispensed with and the teacher in charge of the gymnastics allowed to do all the work. As to the library feature, there is no reason whatever for its existence in this centre, as the Jackson Square Branch of the New York Public Library (No. 251 West Thirteenth street) is in the same block and meets all the needs of the community in this respect. This library is open in the evening until 9 o'clock and is well patronized by the young people.

It will also be noted that in recreation centre No. 8 (No. 29 King street) the attendance dropped from 425 in January, 1903, to 170 in March, 192 in April, 191 in May and 170 in June. Notwithstanding the fact that the attendance drops off after March 1 and continues to be light until the end of the term the full corps of teachers is retained. This centre is held in the afternoon between 3:30 and 6 o'clock in a school having a fine yard which is used for the athletic sports and games. Most of the boys who attend the centre are found in this yard instead of in the school building. This centre was inspected in March of this year and again in April. At no time during either visit were there more than eight or nine boys in the game-room and ten or twelve in the gymnasium. On April 18, 1904, an inspector from the Finance Department sat in the game-room from 3:30 until 4 o'clock. During that time two little boys played a game of checkers; two other little boys played a history game, and five other little fellows came in and remained a few moments to look on. The principal, who has charge of the games in the yard, is highly competent and abundantly able to look after all the boys who attend during the spring months. The assistant teacher of gymnastics, who has charge of the gymnasium, and the librarian, who has charge of the game-room, should both be dispensed with. In fact, there is no need of a library in this centre at any time of the year, as the Richmond Hill Settlement House maintains a fine library just around the corner on Macdougall street.

The following official report of recreation centre No. 78, at Pleasant avenue and One Hundred and Nineteenth street, illustrates the superabundance of teachers found in some of the recreation centres:

WEEKLY REPORT OF RECREATION CENTRE.

Borough of

DEPARTMENT OF EDUCATION,

THE CITY OF NEW YORK.

Report of Recreation Centre No. 78 for the Week Ending April 16, 1904.

Registration—Boys..... Girls..... Total.....

Attendance.

Monday,	Boys.....	Girls.....	78.	Total.....
Tuesday,	Boys.....	Girls.....	65.	Total.....
Wednesday,	Boys.....	Girls.....	77.	Total.....
Thursday,	Boys.....	Girls.....	83.	Total.....
Friday,	Boys.....	Girls.....	94.	Total.....
Saturday,	Boys.....	Girls.....	87.	Total.....
Aggregate,	Boys.....	Girls.....	459.	Total.....
Average,	Boys.....	Girls.....	76.	Total.....

Teachers.

Position—

Principal Helen E. Althof.....	Present 6 D.	Absent	Late	Dis.	Inst.
Ray Finberg	Present 6 D.	Absent	Late	Dis.	Inst.
Gertrude L. Cowte....	Present 6 D.	Absent	Late	Dis.	Inst.
Margaret Miller	Present 6 D.	Absent	Late	Dis.	Inst.
Minnie N. O'Brien....	Present 6 D.	Absent	Late	Dis.	Inst.

The civil list for 1904 contains only four teachers for this centre. As the report just given names five, one must have been recently added. On the evening of April 16, 1904, an inspector from the Finance Department visited this centre. At no time between 8:40 and 9:30 P. M. were there more than twenty-four girls in attendance. As the whole number who came in and out each evening during the entire week averaged only seventy-six, it is not likely that more than this number were present at any one time during the week. Five teachers and a janitor to supervise twenty-four girls while they play!

CONCLUSIONS.

There can be no doubt that public school buildings should be used as neighborhood centres, especially on the great East Side, where the population is congested and the conditions of life abnormal. The idea of a recreation centre is good, but it has not yet been turned over into successful practice by the Department of Education. The evening recreation centres should be maintained, but economy should be applied to their administration. Had this been done during the current year, thousands of dollars might have been saved without crippling the work.

The evening recreation centres are suffering from overmanagement. They will never succeed as places for recreation until they are freed from the incubus of excessive

supervision. The school building should be opened in the evening and put at the disposal of the people in the neighborhood for purposes of recreation, but it is absurd to equip it with a formidable staff of learned instructors. The chief need is to check disorder. All that is required is an adequate number of supervisors, who are sufficiently intelligent to maintain order and render such incidental assistance as the boys and girls may need in their games and amusements. At least one-third of the money now paid for salaries in the evening recreation centres is useless expense.

The spirit of the present administration of these centres is a draw-back. It suggests discipline rather than recreation. The tendency has been to set up a system of schools rather than to provide places for recreation and amusement. The work in the centres as a whole is mechanical. It lacks spontaneity. An artificial system of play is being forced upon the City regardless of local characteristics. Places for amusement may be provided to advantage, but the development should be left in the main to neighborhood spontaneity. The play instinct has always been a ruling passion of child life. The need is to furnish favorable conditions for its spontaneous development. Children teach themselves to play. Any new form of amusement spreads easily without formal instruction. This is true among adults as well as children.

The method of managing the recreation centres is at variance with their aim and purpose. No system of recreation centres should be governed by cast-iron rules and regulations. Teachers should not be criticised for doing what the boys and girls want to do, instead of following official directions. Although it is claimed that the teachers employed for the centres have high qualifications for this kind of work, they are not given any large freedom in adapting it to the needs of the locality in which they teach. The need is for greater freedom in the exchange of opinion and suggestion on the part of those engaged in the work. Criticism should be invited as a means of progress.

At present the centres do not reach in any large way the class of people most in need of recreation. As a rule the boys and girls found in the centres do not come from the poorer homes of the City. This is true even on the East Side. The girls seen at the Attorney and Hester street centres impress one by their attractive dress and general appearance of prosperity. They seemingly come from the better homes of the community and if they were not in recreation centres most of them would be at home with their mothers which would probably be just as well. Neither do the centres reach a sufficient number of different boys and girls. In most instances the same coterie of young people visit a given centre night after night. This is especially true in the girls' centres where the dancing is a great attraction.

At nine o'clock one cold evening, in the school building at the corner of Market and Monroe streets, while we waited for mothers who did not appear, the young woman club director told me of her struggles and difficulties in getting the mothers of the community to attend her "mothers' meetings" in the recreation centres. The building was warm and light and its spacious rooms were so attractive that the poor tired

mothers could hardly have resisted the invitation to leave their crowded tenements and rest for an hour in such pleasant quarters, had it not been for the prospect of having to join in a discussion of "Current Events" or listen to a lecture on the "Responsibilities of Motherhood," from an idealistic and sentimental point of view. This of itself is enough to keep them away. The mothers would like to come into the school-houses but they do not want to be burdened with instruction while there. In this centre, which reports an average attendance of 250 per night, at the hour when the attendance is supposed to be at its height, less than seventy young people were present. A janitor, a principal, a librarian, a club director and a pianist were provided to look after this number of girls. A study-room teacher was added to the corps on Friday and Saturday evenings.

Until more economical and effective methods of conducting the evening recreation centres can be worked out, and the expense of maintaining them brought within reasonable limits, this feature of the public school system should not be further extended. The centres now in operation should be continued, but the teaching force should be reduced, and in most, if not all, of the centres the term should be shortened. Seventy-five thousand dollars a year is too much to spend on an experiment which has not yet achieved results which are in any sense satisfactory.

Respectfully,

(Signed)

(Mrs.) MATHILDE COFFIN FORD.

REPORT No. 14.

Report by Examiners of the Investigations Division on the Purchase of School Supplies, Other than Text Books, by the Board of Education for the Year 1903, with the Results of a Comparison of the Contract Awards for 1903 and 1904.

Hon. EDWARD M. GROUT, Comptroller:

SIR—In compliance with your instructions I have caused an examination to be made of the purchase of supplies, other than text books, in the elementary schools of the City in the calendar year 1903. Text book purchases during that year have been treated in a previous report made to you by this Division. As a result of the examination I beg leave to submit the following report:

Prior to January 1, 1902, the Department of Education maintained separate supply bureaus in Manhattan and The Bronx, Brooklyn, Queens and Richmond, but, under the provisions of the Revised Charter, these supply bureaus have been consolidated into one central bureau, the Superintendent of which now has charge of the purchase, storage and distribution of all school supplies for the entire City.

This examination does not cover the entire work of the Supplies Division of the Department of Education for the year 1903, but only that part of it which has to do with the elementary schools. The facts and figures contained in this report apply solely to supplies purchased for use in the elementary day and evening schools. It should also be noted that this report does not include such minor purchases as are made from time to time on what are known as "open orders," but deals strictly with the general supplies (exclusive of text books) which were purchased on contracts.

The business included in the analyses made by your Examiners covers \$849,439.93 out of the \$1,009,031.12 appropriated for supplies for all the Boroughs for 1903. The difference between these two amounts, or \$159,591.19, is represented in the purchases for high schools, open order purchases, and other miscellaneous items.

Total amount appropriated for school supplies, all the boroughs, for 1903	\$1,009,031 12
Amount expended for text books, all boroughs, according to statement furnished by Patrick Jones, Superintendent of Supplies.....	444,808 27
Amount expended for general supplies for elementary schools, according to analyses made by the Department of Finance.....	404,631 66

Practically all purchases of school supplies are made on contracts, the prices being determined by public competition. Following out the plan of centralizing the business of handling supplies for the schools of the City, and pending the revision of the course of study and text book and other supply lists, a provisional list of supplies was made up for 1902 by merging the lists formerly used in the several boroughs into one. This list was revised for 1903. As submitted to contract bidders it contained approximately 1,080 different items exclusive of text books. The bids for the 1903 contracts for general supplies were opened December 11, 1902. The Division of Supplies of the Department of Education was at that time in charge of Mr. Parker P. Simmons who, as Superintendent of Supplies, was required by the by-laws to "open such bids, tabulate the same, and submit such tabulation to the Committee on Supplies for its action." The Committee on Supplies, Department of Education, at the time the bids were opened, was composed of Mr. Henry A. Rogers, Chairman; Mr. George W. Schaedle, Mr. Francis P. Cunlion, Mr. Nathan S. Jonas, Mr. Adolph Kiendl, Mr. Samuel M. Dix and Mr. Edward Van Ingen.

APPORTIONMENT OF SUPPLIES.

Supplies are apportioned to the elementary schools on the basis of a per capita allowance, and an effort is made to base this allowance upon the largest possible number of pupils. With this end in view the basis has been changed twice during the past two years, each change increasing the allowance. For some years previous to 1902 the amount of money allowed to each school for text books, stationery and other school supplies, was based as nearly as practicable upon the average annual attendance at the several schools. It became apparent that the allowance might be increased by basing it upon the largest attendance for any single month in the year, and, as the attendance was supposed to be at its height in November, the by-law was amended so as to provide that:

"The amount of money which can be expended for text books, stationery and other school supplies, except fuel, during the year in each school, shall be determined under the direction of the Committee on Supplies by the Superintendent of Supplies, in accordance with the average attendance during the preceding month of November."

The increase under the amendment is apparent from the fact that the average attendance for the month of November, 1902, was 436,692, while the average daily attendance for the year 1902 was only 424,234.

In 1903 the Committee on Supplies decided that the yearly allowance for supplies should be based on the whole number of pupils registered during the month of November instead of the average attendance during that month, and made a report to this effect to the Board of Education with the request that the by-laws be so amended. The number of pupils registered is always greatly in excess of the number actually in attendance. On December 23, 1903, a resolution was adopted amending the by-laws so as to read as follows:

"The amount of money which can be expended for text books, stationery and other school supplies, except fuel, during the year in each school shall be determined under the direction of the Committee on Supplies by the Superintendent of Supplies, on the basis of the largest number of pupils registered in such school during any month in the preceding year."

The increase in the allowance for supplies under this last amendment is shown by the fact that the number of pupils registered in the elementary schools of the City during November, 1903, which number was used as the basis of the allowance for supplies for the calendar year 1904, was 50,094 greater than the average attendance during the same month.

Not only has the basis of the allowance for supplies been increased, but also the amount of the allowance for each pupil. Prior to 1902 each borough had its own plan for making allowance for supplies to the several schools, but in that year the uniform system was adopted whereby the per capita allowance for each grade was as follows:

\$2.10 Grammar schools.

\$0.90 Primary schools.

\$0.90 Kindergartens.

In 1903 this allowance was increased to:

\$2.20 Grammar schools.

\$1.00 Primary schools.

\$0.90 Kindergartens.

CHAOTIC CONDITION OF STOREKEEPER'S RECORDS.

In the early stages of the examination into the business methods of the Department of Education, an effort was made to determine the cost of the special studies in the elementary schools in connection with the several reports made by Mrs. Mathilde Coffin Ford. Upon request made by you, Mr. Patrick Jones, Superintendent of Supplies, Department of Education, furnished certain statements purporting to represent expenditures for supplies used in teaching sewing, cooking, drawing and constructive work, but subsequently, upon examination made by representatives of this Department of the records of the Supply Division of the Department of Education for the year 1903, it was found that no complete records had been kept that would show the actual quantities of the various kinds of supplies purchased during the year mentioned.

According to information furnished your representatives, it had formerly been the practice in the several borough depositories of supplies to keep complete Storekeeper's records, which would at any time indicate the quantities and cost of the several kinds of supplies purchased and also show the manner of the distribution of the said supplies among the schools throughout the borough. Some time after the centralization of authority over the matter of supplies, the setting up of these records was abandoned. As a reason for this it is stated that the services of the Clerks of the Supplies Division engaged in keeping these records were required on other work connected with the Division.

As a part of the Storekeeper's system of records formerly maintained in the several borough depositories, the requisitions from School Principals were tabulated before being sent to the distributing room, from which the goods were taken. By this means a record was kept of the distribution of the several kinds of supplies, which served not only as a check against any leakages in the Supplies Division, but also provided data by which the members of the Supplies Committee were enabled to limit the quantities of supplies which were furnished to the different schools on the basis of a per capita allowance, in accordance with the regulations of the Board of Education. The keeping of this record, it would also appear, was abandoned during 1903.

The representatives of the Finance Department therefore found it impracticable to procure from the books of the Supplies Division any accurate statement of obligations contracted by the Department of Education for supplies during the year 1903. It was found equally impracticable to prepare any statement indicating the manner of distribution of the supplies during that year. There were no account books posted to date that would reflect such data as were desired for this report.

Notwithstanding the abandonment of the records of requisitions, however, it appears that Mr. John Cottier, Deputy Superintendent of Supplies, undertook to keep, on his own account, a memorandum of the cost of supplies forwarded to the different schools, so that there might be some record by which the School Principals could be limited in their orders. This record was found by your Examiners to cover only a part of the year and to be incomplete for that period which it did cover. Recourse was then had to the original requisitions of the School Principals on file in the Division of Supplies, and representatives of the Department of Finance were set to work to prepare a statement showing the distribution of the goods purchased during the year. The fact was soon disclosed that all the requisitions for school supplies were not on file in the Division of Supplies. Upon inquiry being made as to whether a complete file of duplicates of these requisitions could be found, it was learned that the only place where they might be procured would be in the requisition books of the School Principals, where stub copies of the requisitions are kept. Inasmuch as the evening schools had closed and the Principals of these schools had stored their supplies and office records, it was deemed impracticable, within the time allowed for this examination, to obtain and analyze these stubs.

There being no storekeeper's record of the quantity of supplies purchased from the various contractors during 1903, as stated above, and no book of record reflecting the distribution of these supplies, your Examiners undertook the work of setting up such records. This task has covered a period of about four months, and the results of the examination thus made are shown in the several summaries given herewith. These several statements apply to the different classes of goods designated as follows:

- Drawing materials.
- Stationery.
- Mimeograph supplies.

Pencils.
 Pens.
 Typewriting materials.
 School records.
 Kitchen supplies.
 Kindergarten supplies.
 Sewing materials.
 Workshop and manual training supplies.
 Janitors' supplies.
 Miscellaneous articles.

In preparing these statements it was thought proper, in the absence of a complete file of the principals' requisitions, in order to indicate approximately the quantities of the several articles used during the year 1903, to set up.

First—The stock on hand as shown by the Department of Education inventory on December 31, 1902.

Second—The quantities and cost of goods shown to have been ordered from contractors during 1903, by an examination of the stubs in the order books.

Third—The quantities and cost of goods on hand December 31, 1903, as shown by the inventory made up by the Department of Education.

An inventory made by officials of the several borough depositories on December 31, 1902, placed the value of supplies on hand at \$59,683.47. As a result of the examination thus made by your Examiners it was found that (exclusive of text books) the contract cost of supplies purchased for New York City schools during the year 1903 was \$404,631.66. For the purpose of this report, Mr. Patrick Jones, Superintendent of Supplies, furnished a statement of his inventory account of December 31, 1903. The valuation of goods then on hand was stated to be \$68,565.87.

THE STORY OF THE YEAR 1903.

In the absence of exact business records in the Division of Supplies covering the year 1903, your Examiners were compelled to approximate the quantity and cost of goods actually used in the schools during that year. The method of determining these facts has been to deduct from the totals represented in the inventory of December 31, 1902, and the purchases known to have been made during the year 1903, the figures furnished by the Department of Education purporting to represent the stock on hand December 31, 1903.

Following will be found the results of a series of analyses of the purchases of supplies during 1903, as made by your Examiners. These show in detail the quantity and contract cost of all supplies for which orders were issued to contractors during the year 1903 and which were presumably delivered, as well as the results of an examina-

tion which has been made into the manner of making the awards in several important instances in 1903 and 1904:

Total Cost Value of Supplies, Exclusive of Text-books, on Hand in the Several Borough Depositories of the Department of Education on December 31, 1902.

Drawing materials	\$4,724 76
Janitor's supplies	8,172 96
Kindergarten supplies	924 28
Kitchen supplies	70 38
Mimeograph supplies	29 46
Miscellaneous articles	2,925 15
Lead pencils	18,144 15
Pens	5,590 57
School records	1,271 84
Sewing materials	5,444 64
Stationery, blanks, etc.	11,758 18
Typewriting materials	447 51
Workshop supplies	179 59
Total	<u>\$59,683 47</u>

Cost Value of Supplies by Boroughs, Exclusive of Text Books, for Which Orders Were Issued to Contractors Under 1903 Contracts.

	Manhattan and Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Drawing materials.....	\$47,230 08	\$20,337 68	\$4,377 40	\$2,533 78	\$74,478 94
Janitors' supplies.....	27,979 07	16,748 95	3,067 15	613 74	48,408 91
Kindergarten supplies.....	9,779 76	8,725 97	1,672 38	739 07	20,917 18
Kitchen supplies.....	2,503 30	1,860 95	211 69	1 59	4,577 53
Mimeograph supplies.....	1,051 95	675 30	327 00	63 10	2,117 35
Miscellaneous articles.....	14,478 97	7,499 26	1,030 94	169 13	23,178 30
Pencils	20,586 25	6,662 55	571 20	1,724 50	29,544 50
Pens	5,806 91	4,024 46	249 05	485 75	10,566 17
School records.....	9,359 68	5,906 66	474 79	29 83	15,770 96
Sewing materials.....	19,939 39	10,586 11	2,236 18	218 11	32,979 79
Stationery, blanks, etc....	63,202 25	37,847 69	5,231 10	3,648 46	109,929 50
Typewriting materials.....	5,652 28	1,775 01	2,348 59	260 00	10,035 88
Workshop supplies.....	9,894 91	6,742 11	3,305 94	2,183 69	22,126 65
Totals.....	<u>\$237,464 80</u>	<u>\$129,392 70</u>	<u>\$25,103 41</u>	<u>\$12,670 75</u>	<u>\$404,631 66</u>

Cash Value of Supplies, Exclusive of Text-books, on Hand in the Several Borough Depositories of the Department of Education December 31, 1903.

Drawing materials	\$10,452 32
Janitors' supplies	12,952 31
Kindergarten supplies	1,673 58
Kitchen supplies	196 90
Mimeograph supplies	115 74
Miscellaneous articles	4,567 12
Pencils	11,595 27
Pens	5,115 73
School records	2,796 65
Sewing materials	5,410 68
Stationery, blanks, etc.	12,070 97
Typewriting materials	547 00
Workshop supplies	1,071 60
Total	<u>\$68,565 87</u>

Summary, Showing the Cost Value of School Supplies Withdrawn from Depositories During the Year, and Presumably Sent to the Schools on Requisitions from Principals.

	Cost Value Stock on Hand December 31, 1902.	Cost Value of Contract Orders, 1903.	Cost Value Stock on Hand December 31, 1903.	Difference— Representing Cost of Goods Withdrawn from Depositories During 1903.
Drawing materials.....	\$4,724 76	\$74,478 94	\$10,656 29	\$68,547 41
Janitors' supplies.....	8,172 96	48,408 91	12,952 31	43,629 56
Kindergarten supplies.....	924 28	20,917 18	1,660 05	20,181 41
Kitchen supplies.....	70 38	4,577 53	196 90	4,451 01
Mimeograph supplies.....	29 46	2,117 35	115 74	2,031 07
Miscellaneous articles.....	2,925 15	23,178 30	4,567 12	21,536 33
Pencils	18,144 15	29,544 50	11,585 27	36,103 38
Pens	5,590 57	10,566 17	5,121 73	11,035 01
School records.....	1,271 84	15,770 96	2,796 65	14,246 15
Sewing materials.....	5,444 64	32,979 79	5,410 68	33,013 75
Stationery, blanks, etc.....	11,758 18	109,929 50	12,582 07	109,105 61
Typewriting materials.....	447 51	10,035 88	547 00	9,936 39
Workshop supplies.....	179 59	22,126 65	1,071 60	21,234 64
Totals.....	<u>\$59,683 47</u>	<u>\$404,631 66</u>	<u>\$69,263 41</u>	<u>\$395,051 73</u>

PRESENT ADMINISTRATION NOT RESPONSIBLE.

In justice to Mr. Patrick Jones, who has superseded Mr. Parker P. Simmons as Superintendent of the Division of Supplies, it should be stated that he is not responsible for the condition of the records of the Supply Division, covering the business done during the year 1903. During the greater part of that time Mr. Jones was Assistant Superintendent of Supplies under Mr. Simmons, but, owing to severe illness, he was away from the Department for a period of seven months. On November 27, 1903, following an inquiry into certain charges of incompetency preferred against Superintendent Simmons by Mr. Nathan S. Jonas, a member of the Supplies Committee of the Board of Education, Mr. Simmons resigned his position. On December 23, 1903, Mr. Patrick Jones was designated by the Board of Education to serve as Superintendent of Supplies during the unexpired portion of the term. Since then Mr. Jones has been regularly elected as Superintendent of Supplies for the full term of six years, ending in 1910.

Recognizing the absolute necessity for a system of records which would indicate the quantities of supplies purchased and make for integrity in the handling of the goods, as well as furnish a means of determining the proper distribution of the supplies, Mr. Jones has introduced a new set of storekeeper's records, which, if properly posted, will furnish the Department of Education with records such as are kept by great commercial houses and other institutions that handle large quantities of merchandise.

CONDITIONS UNDER WHICH CONTRACTS ARE AWARDED.

One condition of the specifications for stationery and other general supplies purchased by the Board of Education would appear to be the submission of samples by bidders. According to the contract specifications, all supplies must conform to the description of the articles in the specifications and must be in accordance with the samples furnished for inspection.

The Committee on Supplies attempts to maintain certain standards of quality, the samples showing these standards being selected from the goods in use in the schools, but the maintenance of these so-called Department of Education standards has been indifferent and the practice has been only partially adhered to. Unlike the standards of the United States Government and private institutions where large purchases of supplies are made on contract, those of the Department of Education are not generally recognized by manufacturers and jobbers as having any permanent character.

It has been found practicable in the United States Navy and other Federal Governmental Departments to establish fixed standards, which have now come to be so universally recognized that the fullest competition is allowed to all manufacturers,

they being informed as to the exact requirements of the Government from year to year. In this way manufacturers desiring to compete for the contracts to be awarded know in advance just what conditions have to be met.

While the Department of Education undertakes to set up certain standards, it is not claimed that these standards are fixed or permanent. There may be selected from samples offered by bidders in any one year any article which may appeal to the majority of the Supplies Committee, or to some official representing them, as desirable, and it may thereafter be substituted for the one formerly in use, so that the final determination as to the efficiency and the quality of any article of goods to be furnished the Department of Education on contract is with an ever changing Supplies Committee. This uncertainty is one of the elements that has caused dissatisfaction among manufacturers and has led to a determination on the part of some large and representative business firms to refrain from bidding on Board of Education contracts. As a consequence, a number of persons now appear as contractors for the City's educational supplies who are mere jobbers or speculative bidders.

As a preliminary to the awarding of contracts subsequent to the opening of bids an examination of the samples submitted is provided for, to be conducted under the direction of the Committee on Supplies. The work of tabulating bids for the 1903 contracts and of testing samples submitted by bidders was done by Mr. Parker P. Simmons, who, after having completed the examination, passed up his recommendations for the consideration of the members of the Committee on Supplies. These were for the most part perfunctorily approved, special consideration being given by the Committee to those instances where there appeared to be any question as to the quality of the samples submitted. These instances, it is stated, were then finally passed upon by the Committee and the work of the Superintendent of Supplies, as a whole, formally approved.

Theoretically competent tests are made of all the samples submitted by bidders, but your Examiners have been informed by representatives of business firms who compete for contracts that the methods of examination and testing are of the most superficial character. There seems to be no disposition on the part of the Supplies Committee to apply the various approved tests which are used in the different trades. It is under the operation of this method of testing goods that the Board of Education annually awards contracts for supplies costing the City from \$400,000 to \$600,000.

That the methods of the Board of Education prompt irregularities on the part of bidders would appear to be indicated by facts disclosed in this examination. Despite the provision of the specifications that bidders inspect the standard samples set up by the Board of Education, and agree to furnish goods equal thereto, and the further fact that bidders are presented, on request, with samples of the smaller portable articles, for comparison with their stock outside the Board rooms, it has been shown in the course of this inquiry that certain bidders present samples palpably inferior to the

standard exhibited by the Committee on Supplies. Such contractors have admitted that they did not intend to comply with the requirement to furnish articles equal to the standard sample, but proposed to take chances on the acceptance by the Committee on Supplies of their goods, which they knew to be inferior.

STATIONERY SUPPLIES FOR 1903.

The largest class of school supplies, from the point of money involved, is that of drawing materials, stationery and kindred supplies. These several lines of supplies have been separately designated by the Board of Education in the printed supplies list under the heading of drawing materials, stationery, mimeograph supplies, pencils, pens and typewriting materials. The compilations made in the course of this examination show that the total cost of this class of supplies ordered during the year 1903 was \$259,636.53.

The largest individual contractor for this class of goods was the L. W. Ahrens Stationery and Printing Company. The purchases made from this company in 1903 would appear to have amounted to \$99,912.72, or nearly 40 per cent. of the total amount purchased.

Under the following classifications the L. W. Ahrens Company secured orders for goods costing:

Stationery, blanks, etc.....	\$74,475 12
Drawing materials	11,113 64
Pencils	7,566 20
Pens	3,367 95
Typewriting materials	1,508 81
Miscellaneous articles	1,881 00
<hr/>	
Total.....	\$99,912 72
<hr/>	

All other contractors furnished the following in the same classes:—

Stationery, blanks, etc.....	\$35,454 61
Drawing materials	63,624 27
Pencils	21,977 90
Pens	7,170 21
Typewriting materials	8,672 09

Mimeograph supplies	\$2,117 35
Miscellaneous articles	20,707 38
	<hr/>
	\$159,723 81
Furnished by Ahrens Company.....	99,912 72
	<hr/>
Total.....	\$259,636 53
	<hr/> <hr/>

Examination of the contract between the Board of Education and the L. W. Ahrens Stationery and Printing Company for stationery, supplies and drawing materials for 1903, and analysis of the bids of the several competitors for the same supplies, shows, first, that of the ninety-eight separate items awarded to the L. W. Ahrens Company there was no competition with that firm on its bids on twenty-nine of the items. Of the remaining sixty-nine items awarded, the Ahrens Company was lowest on only eight. On sixteen items the bids of this firm were a tie with those of other competitors.

It is stated that it has been the custom of the Committee on Supplies, in making awards in a case in which the bidders were tied to divide the orders if the samples submitted were found to be equal in quality, except that the preference is sometimes given to a manufacturer over a competing jobber or a bidder who does not regularly handle the goods called for, but in the present instance it appears that the L. W. Ahrens Company was awarded all of the sixteen items.

THE IMPORTANT ITEM OF PADS.

The total expenditures for stationery, blanks, etc., under the contract of 1903, was \$109,929.50. Of this total \$80,233.02 was expended for writing and scribbling pads and the related items of memorandum books and composition books, \$63,568.01 of this amount being paid to the L. W. Ahrens Company.

From the examination of the order books of the Supply Division, made by the representatives of the Finance Department, it would appear that 254,355 dozen pads had been ordered in six sizes and varieties, and stenographers' note books in one style, at a cost of \$56,869.03. The pads were furnished at the following figures:

Item No.	Successful Bidder.	Dozen.	Price Per Doz.	Amount.
3062	The L. W. Ahrens Company.....	23,720	\$0 21 2-3	\$5,139 33
3063	The L. W. Ahrens Company.....	38,600	19½	7,527 00
3064	Peckham, Little & Co.....	28,936	44½	12,876 52
3065	The L. W. Ahrens Company.....	28,035	43¾	11,827 81
3066	The L. W. Ahrens Company.....	8,850	25¾	2,278 88
3067	The L. W. Ahrens Company.....	104,367	15 2-5	16,072 52
3068	Hopper, Morgan & Co.....	21,847	05¼	1,146 97
	Total.....	254,355	.....	\$56,869 03

The several bidders proposing to furnish pads for delivery during 1903, with the "bid" price per dozen in each instance and the quantities previously estimated by the Committee on Supplies as being required by the schools in 1903, are as follows:

Item No.	Estimated Quantities, Dozen.	Description of Pads.	E. G. Hughes & Co.	Daniel Slote & Co	The American News Com- pany.	Matthew J. Tobin.
3,062	25,000	White—Composition—No. 8, 7 x 9 inches, per dozen..	.....	\$0.28¼	.....	\$0.279
3,063	60,000	White—Composition—No. 9, 7 x 9 inches, per dozen..	.....	.279	.....	.226
3,064	30,000	White—Composition—No. 10, 8 x 10½ inches, dozen....	\$0.47	.53	.....	.38
3,065	22,000	White—Composition—No. 11, 6 x 9 inches, per dozen..	.47¾	.55½	.....	.516
3,066	5,000	Note book—Stenographer's— No. 7, per dozen.....	.....	.55½	\$0.34	.31
3,067	75,000	Manila—Yellow, No. 12, 6 x 9 inches, per dozen..	.17	.24	.175	.177
3,068	40,000	Manila—Yellow, No. 13, 3 x 6 inches, per dozen..	.075	.089	.08	.075
Total 257,000						

*Successful bidder.

John M. Bulwinkle.	Peckham, Little & Co.	D. A. Tower.	Hopper, Morgan Company.	The L. W. Ahrens Company.	Carter, Rice & Co.	J. L. Hammett Company.	N. Y. School Supply Company.	John B. Watkins.
\$0.249	\$0.21 ¼	\$0.264	\$0.26	*\$0.21 2-3	\$0.23	.....	.....	\$0.20 ½
.21	.17 ½	.22	.21	*.19 ½	.18	.....	.....	.18 1-3
.46	*.44 ½	.528	.47	.44 ½	.50	.....	.....	.40 ½
.47 ½	.45	.55	*.47 ½	.43 ¾	.46	.....	.....	.41 ½
.....	.27 ¼	.....	*.27 ½	.25 ¾	.....	.....	\$0.28 3-5	.29
.173	.16 2-3	.22	*.15 ½	.15 2-5	.18	\$0.21	.17 1-3	{ R..18 ½ P..17 1-5
.06 ¼	.05 ⅞	*.08 ½	.05 ¼	.06 ½	.06	.08	.06 1-5	.06

PADS OF THE L. W. AHRENS COMPANY PREFERRED.

It will be seen that the L. W. Ahrens Company was awarded the contracts for five out of the seven items of pads on which bids were called for. In only one instance out of the five that firm was the lowest bidder. On Item 3064 the award was made to Peckham, Little & Co., who, though not the lowest bidder, tied the bid of the Ahrens Company. Hopper, Morgan & Co. bid lowest on Item 3068 and secured the contract.

Further analysis of the above bids presents these facts:

1. That Hopper, Morgan & Co. were conceded the award on Item 3068, under which they have furnished the small amount of \$1,146.97 worth of the cheapest pads (\$0.05¼ per dozen).

2. That the L. W. Ahrens Company received the large amount of \$42,845.54 out of the total paid for pads included in the list given above.

3. That Peckham, Little & Co. were awarded a contract (Item 3064), under which they have supplied \$12,876.52 worth of high-priced pads (\$0.44½ a dozen), although they were not the lowest bidders.

4. The Supplies Committee estimated that 75,000 dozen No. 12 pads (Item 3067) would meet the demands from the schools for the year. Purchases to the extent of 105,137 dozen, at \$0.15 2-5 a dozen, were made from the L. W. Ahrens Company under the 1903 contract.

5. The Committee estimated that 40,000 dozen No. 13 pads (Item 3068) would be required, but only 21,847 dozen, at \$0.05¼ a dozen, were ordered from Hopper, Morgan & Company.

STATEMENT BY JOHN B. WATKINS.

John B. Watkins, who appears as the lowest bidder on several of the items for pads, was interviewed by a representative of the Finance Department, and when asked if he had submitted samples of the pads which he intended to furnish during 1903 with his bid, replied that he had. He stated that in his opinion the sample of paper submitted by him was of better quality than that furnished on the contract subsequently made with the L. W. Ahrens Company. Mr. Watkins declared that if proper tests had been applied to his samples at the time his paper would have been shown to have a higher tensile strength. Mr. Watkins also stated that, in submitting his bid to the Board of Education he made the proposition to furnish any watermark (not already registered) in order to guarantee the Board against any misuse of the paper, and further, to protect them as far as uniformity of grade or quality was concerned. In other words, he would use any watermark selected by the Board of Education which he would be permitted to use without the consent of any particular paper manufacturer or dealer. Mr. Watkins states further that he was not informed as to the result of the opening of the bids, but he learned later that the contract had been awarded to another firm, although he was a lower bidder. He has no official information, he said,

as to the reasons for the rejection of his bid, but he states that the reason his bids were not recognized was that he, Watkins, could not furnish the particular watermark required by the Board of Education, which is as follows:

"B. of E.,"

this watermark having been copyrighted and registered by a paper manufacturer over whom he had no control.

"B. OF E." WATERMARK COPYRIGHTED.

It appears from further examination made by your representatives that there was filed with the authorities at Washington on November 6, 1902, an application from the American Writing Paper Company of the State of New Jersey, located and doing business in the City of Springfield, Massachusetts, for the registration of a trade mark for paper. A fac-simile of the trade mark being filed with the application showed that it consisted of the letters and word, "B. of E."

In the statement filed by G. B. Holbrook, Treasurer of the American Writing Paper Company, it is stated:

"This trade mark has been continuously used in the business of this corporation since the 21st day of October, 1902."

It also appears from this statement that the trade mark was intended for use on writing paper and drawing paper. The declaration of Mr. G. B. Holbrook, before mentioned, also states:

"That the said corporation (American Writing Paper Company) at this time has a right to the use of the trade mark therein described; that no other person, firm or corporation has the right to such use either in the identical form or in any such near resemblance thereto as might be calculated to deceive; that the trade mark is used by the said corporation in commerce between the United States and foreign nations, and particularly with Canada, and that the description and fac-simile presented for record truly represent the trade mark sought to be registered."

The statement and declaration of trade mark, it would appear, were registered on December 9, 1902, as trade mark No. 39445. It also appears that subsequent to the registration of the trade mark the L. W. Ahrens Company, in submitting its bids for pads, furnished samples of paper containing the "B. of E." watermark. The advertisement calling for bids for stationery supplies for 1903 was first printed in the CITY RECORD December 1, bids to be opened December 11, 1902.

It is stated that the Board of Education now controls the "B. of E." trade mark.

SIX THOUSAND DOLLARS DIFFERENCE IN COST.

In the six items of pads, costing the City in round figures \$61,000, it will be seen that they would have cost something less than \$55,000 had the contracts been awarded

to the lowest bidder. This does not include stenographer's note books, costing about \$2,200.

Item 4097 of the 1904 contract is for manila pads, No. 12, size 6 x 9 inches, for pencil, ruled and unruled, 80 leaves. The bidders were:

The L. W. Ahrens Company.....	\$0 27	per dozen pads.
M. J. Tobin.....	27 1-3	per dozen pads.
Hopper, Morgan & Co.....	17 7-8	per dozen pads.
Peckham, Little & Co.....	27 1-3	per dozen pads.

A pad similarly described and known as Item 3067 in the 1903 contract, was purchased from the L. W. Ahrens Company at \$0.15 2-5. The orders for these pads in 1903 amounted to 104,367 dozen, costing \$16,072.52. The estimated quantity required, as stated in the 1903 contract specifications, was 75,000 dozen. The estimated quantity for use in 1904 was placed at 80,000 dozen, and it is shown by an examination of the tabulation book of bids furnished by the Department of Education that the award this year was made to the L. W. Ahrens Company, notwithstanding the fact that its price this time was \$0.27 per dozen, or \$0.09 $\frac{1}{8}$ in excess of the bid submitted by Hopper, Morgan & Co. It may be said that the quality of the sample offered by Hopper, Morgan & Co. was not up to the standard, but that hardly explains the discrepancy between the bids of the L. W. Ahrens Company in 1903 and 1904. Assuming that the same quantity (104,367 dozen) of these pads are purchased during the current year at this year's price of \$0.27 per dozen, it will be seen that the aggregate cost will be \$28,179.09, or an increased cost of \$12,106.57. There will also be noticed a very marked disparity between the 1904 bid of Hopper, Morgan & Co. and his competitors, namely, the L. W. Ahrens Company, M. J. Tobin and Peckham, Little & Co., while there appeared to be little difference of opinion among the last three bidders as to the value of the pad, despite the fact that in 1903 the L. W. Ahrens Company contracted to furnish it at \$0.15 2-5 per dozen. It should also be noted that this was about the only one of the items for pads where there was such a notable increase in price over that of the year previous, although the stock is similar to that used in other pads. The aggregate orders of this particular item would appear also to be in excess of those for all other kinds of pads; 65,767 dozen in excess of the next largest order for pads.

SOME FACTS REGARDING ENVELOPES.

Item 3069 in the 1903 contract was for an estimated amount of 125,000 envelopes, stout manila, 3 $\frac{1}{2}$ x 6 $\frac{1}{2}$ inches. The bidders were:

The J. W. Pratt Company.....	\$0 45
Daniel Slote & Co.....	47
Milton Bradley Company.....	44
M. J. Tobin.....	51
Peckham, Little & Co.....	51

D. A. Tower.....	\$0 47
L. W. Ahrens Company.....	45
Carter, Rice & Co.....	53
John B. Watkins.....	48

The award was made to M. J. Tobin at \$0.51, the samples submitted by him presumably being superior to those of the six other firms whose prices were lower. The orders for this envelope in 1903 amounted to 487,000. This year, however, under the 1904 contract (Item No. 4101), being for an estimated quantity of 500,000 of the same size envelope, notwithstanding the fact that M. J. Tobin bid \$0.50 per thousand, or one cent lower than his price of 1903, the sample presumably being the same as furnished by him during the year, the award was made by the Supplies Committee to the American Paper Goods Company at \$0.48 per thousand. This would appear to be an instance where the Supplies Committee reversed its action of 1903.

Item 3070 of the 1903 contract is for an estimated quantity of 300,000 white envelopes, No. 6. The award was made to John B. Watkins at \$0.66 per thousand, notwithstanding the fact that the Milton Bradley Company bid \$0.60. Examination of the 1903 orders shows that 801,000 were purchased. The same envelope this year is known as Item 4103, the estimated quantity being 500,000. The award was made to the American Paper Goods Company at \$0.57 per thousand. The lowest bidder was successful this year, and a more economical spirit was noticed in the awards made.

Item 3071 of the 1903 contract, estimated quantity 125,000, is for white envelopes, No. 10. The award was made to M. J. Tobin at \$1.24, he being the lowest bidder. The same envelope in the 1904 contract is known as Item 4104, the estimated quantity this year being 250,000. The American Paper Goods Company received the award at \$1 per thousand, the Samuel Cupples Envelope Company being the next lowest bidder at \$1.10 per thousand.

The 1904 bid prices of the American Paper Goods Company and of the Samuel Cupples Envelope Company for the 1904 envelope contracts would appear to have been lower than those of any of their competitors, with the exception of Item 4101, and all of the awards for envelopes were made to these two firms this year.

Item 3072 in the 1903 contract is for an estimated quantity of 50,000 white envelopes No. 12. The award was made to M. J. Tobin, at \$1.74. The Milton Bradley Company bid \$1.58, the L. W. Ahrens Company \$1.65 and Carter, Rice & Co. \$1.65. The orders for 1903 amounted to 158,550. In the 1904 contract the same envelope is described as Item 4105. The award was made to the American Paper Goods Company, at \$1.20 per thousand, the next nearest competitor being the Samuel Cupples Envelope Company, at \$1.50. The difference in price of \$0.54, as compared with 1903, shows the wisdom of selecting the lowest bidder, the quality appearing to be satisfactory this year.

Item 3073 in the 1903 contract is for an estimated amount of 75,000 manila envelopes, size 10 x 13 inches. The bidders on the 1903 contract were:

	Per Thousand.
John B. Watkins.....	\$4 54
Carter, Rice & Co.....	2 86
L. W. Ahrens Company.....	3 90
D. A. Tower.....	5 30
Peckham, Little & Co.....	5 00
M. J. Tobin.....	4 60
Milton, Bradley Company.....	4 35
Daniel Slote & Co.....	5 28
The J. W. Pratt Company.....	5 28

The award was made to M. J. Tobin at \$4.60, as against \$2.86, the bid of Carter, Rice & Co., the lowest bidders, and the bids of the L. W. Ahrens Company and the Milton Bradley Company, who were also lower. The orders given during the year amounted to 215,500, greatly in excess of the estimated quantity.

In the 1904 contract we find manila envelopes, 10 x 13, described as Item 4100, the estimated quantity for 1904 being 250,000. The bidders were:

The Manhattan Supply Company.....	\$4 98
The L. W. Ahrens Company.....	4 78
John B. Watkins.....	4 50
M. J. Tobin.....	4 54
J. W. Pratt Company.....	4 58
Samuel Cupples Envelope Company.....	4 35
Peckham, Little & Co.....	4 58
American Paper Goods Company.....	4 25

—at which last low figure the award was made. Carter, Rice & Co. was not successful in receiving an award in 1903, although \$1.74 lower than M. J. Tobin, the successful bidder. In 1904, Carter, Rice & Co. appeared as competitors on six items of envelopes, the estimated quantities of which were approximately 2,700,000, but singularly omitted to bid on Item No. 4100.

INKSTANDS, LABELS AND BLOTTING PAPER.

Item 3079 in the 1903 contract, for an estimated quantity of 1,500 dozen red ink in 2 ounce bottles, 3 dozen in a box, was awarded to the L. W. Ahrens Company at \$0.25, the other bidders being:

	Per doz. bottles.
J. L. Hammett Company.....	\$0 24
D. A. Tower.....	24
J. J. Callahan.....	23
Richard Marsh	30

The quantity ordered during 1903 was 1,949 dozen.

In the 1904 contract the item appears as 4112, the estimated quantity being 2,000 dozen. The award was made to M. J. Tobin at \$0.24 $\frac{3}{4}$ per dozen. John L. Hammett Company bid \$0.20, the United States Trading Company \$0.24 and the L. W. Ahrens Company \$0.25.

Item 3082 on the 1903 contract for an estimated quantity of 200 dozen instands for teachers, was awarded to M. J. Tobin at \$0.98 $\frac{1}{2}$ per dozen, he being the lowest bidder. The same instand is found as Item 4114 in the 1904 contract, the estimated quantity required being 350 dozen. The award was again made to M. J. Tobin at \$0.98. The J. W. Pratt Company bid \$0.83, J. L. Hammett Company \$0.95.

Item 3084 in the 1903 contract was for 500,000 text book labels. The award was made to M. J. Tobin at \$0.24 per thousand. The quantity shown to have been ordered was 1,317,000. In the 1904 contract, text book labels are found as Item 4115. The award was made to M. J. Tobin again, at \$0.30, an increase of six cents per thousand over last year's price. The other bidders for the 1904 contract were John B. Watkins \$0.25 and the J. W. Pratt Company \$0.30. Can it be that the quality offered by John B. Watkins was not up to the standard reasonably required for label purposes?

Item 3086 in the 1903 contract, blotting paper in large sheets, blue and white, 19 x 24 inches, was awarded to Carter, Rice & Co. at \$0.12 per dozen sheets. The estimated quantity was 2,000 dozen, while 3,170 dozen were ordered. In the 1904 contract this appears as Item 4117. George W. Millar and Carter, Rice & Co. both bid \$0.12 per dozen sheets. The award was made to George W. Millar & Co.

CARBON PAPER AND OTHER TYPEWRITER SUPPLIES.

Contrasting the action of the Committee on Supplies in the case of the L. W. Ahrens Company, where bids of that firm were tied to those of other firms, and where it has been shown that the L. W. Ahrens Company received awards of all of the sixteen items where its prices were tied, attention is called to the action of the Committee with respect to the bids of the S. T. Smith Company for the items included in the typewriter supplies schedule in the 1903 specifications.

It appears that the S. T. Smith Company bid on thirty-eight items on which there was competition. The prices of this firm were low on twelve of these items. On five other items they were tied with other bidders. The S. T. Smith Company was awarded none of the items on which its bids were tied with other bidders, and only on one item on which its bid was the lowest. The item on which the Smith Company was lowest was No. 3,222, for brushes, for cleaning typewriting machines. The price bid was \$0.08 1-3, and examination of the orders given to this company for 1903 show that 117 were purchased, costing \$9.75. Item 3221 was also for brushes for cleaning type. This item, it appears, was awarded to M. J. Tobin at \$0.09, and it was found that the orders given

for these brushes amounted to 1.734 at a total cost of \$156.06. It is also shown by an examination of the 1903 specifications that the estimated quantities for brushes of both kinds were six dozen.

A singular fact in connection with the action of the Committee on Supplies in making awards for the 1903 contracts is that the S. T. Smith Company was awarded one item on which its bid was not the lowest. This was item 3252, being for No. 13 typewriting paper, 12 x 13½ inches, heavy, for three-copy work. The estimated quantity in the 1903 specifications was twenty reams. The L. W. Ahrens Company bid \$1.15 per ream and M. J. Tobin bid \$2.45 per ream, as against \$1.80, the bid price of the S. T. Smith Company. Your Examiners fail to find that any orders were awarded during the year 1903 on this item. In the specifications for the 1904 contract this item appears as No. 3764. The bidders were M. J. Tobin, \$1.80; the S. T. Smith Company, \$1.60, and the L. W. Ahrens Company \$0.93½. The award was made to the S. T. Smith Company at \$1.60.

It will be recalled that of the 98 items bid upon by the L. W. Ahrens Company there were 29 on which there was no competition, several of the bids being for specialties and novelties in stationery controlled by this company. Of the remaining 69 items bid upon by the L. W. Ahrens Company, this firm was low on only eight, and was awarded 45 items on which its prices were not the lowest. On the remaining 16 items the L. W. Ahrens Company's bids were "tied" with others.

The estimated quantity of carbon paper of the size 15 x 18 required during the year 1903 was six boxes, as shown by the contract specifications, but the Board of Education orders examined show that 43 boxes were ordered. The size 15 x 18 is an unusual one in carbon paper, and but little used. There are about one hundred and five Departments and Divisions in the City Government, aside from the Department of Education, and your Examiner stationed in the City Record office reports that during the past two years, to the best of his belief, there were not more than six or eight boxes of carbon paper of this size furnished to the City Departments. The price paid for this carbon paper in 1903 was \$9.75 per box of one hundred sheets, or \$0.09¾ a sheet.

Speaking of the bids for carbon paper, Mr. Keating, proprietor of the S. T. Smith Company, manufacturers of typewriting supplies, said that in every instance where his company has bid they have complied with the full letter of the specifications of the Department of Education and submitted samples of what they intended to furnish if successful. He further declared that all samples submitted by him might have been shown by competent tests to equal the standard set up by the Department of Education.

Item 3236 of the 1903 contract calls for Underwood's carbon paper, 15 x 18. The L. W. Ahrens Company bid \$9.75 per box and the S. T. Smith Company big \$3 per box for the same item. The award on his item for the 1903 contract, however, was made to the L. W. Ahrens Company, presumably because the samples submitted by

the Smith Company was not up to the required standard. On the 1904 contract specifications Item 3751 calls for carbon paper of the same brand (Underwood's), 15 x 18, the same size as specified in 1903. The L. W. Ahrens Company again bid \$9.75 per box and the S. T. Smith Company \$3 per box. The award this year, however, was made to the S. T. Smith Company, and Mr. Keating of that firm states that the samples submitted for the 1904 contract were similar to those rejected by the Supplies Committee in 1903. There were, as stated in a preceding paragraph, 43 boxes of this particular size carbon paper furnished in 1903 at a cost of \$419.25, whereas, if the Smith bid had been accepted the cost to the City would have been but \$129. That the paper to be furnished by the S. T. Smith Company was satisfactory for the purposes intended would appear to be proven by the fact that the Committee on Supplies accepted the sample in awarding the 1904 contract. According to a statement by a representative of the S. T. Smith Company made to your Examiners on June 25 of this year, but two boxes of this 15 x 18 carbon paper had been ordered on the 1904 contract to and including that date.

In the 1903 contract Item 3227, Little's satin finish carbon, 8½ x 13 is called for. The S. T. Smith Company bid \$1.50 per box and M. J. Tobin \$3.20 per box. The award was made to M. J. Tobin. On the 1904 contract the same carbon paper appears as 3741. M. J. Tobin appears as a bidder again at \$3.20 per box and the S. T. Smith Company at \$1.50 per box. This year the award, singularly enough, was made to the S. T. Smith Company. Why it was rejected in 1903 at the loss of \$1.70 per box is not clear.

On the 1903 contract Item 3228, Little's satin finish carbon, 12 x 15½, is specified. The S. T. Smith Company bid \$3 per box and M. J. Tobin \$5.70 per box. The award was made to Tobin. The award of similar goods this year, described as Item 3742, Little's satin finish, 12 x 15½, was made to the S. T. Smith Company at \$3 per box, M. J. Tobin again bidding \$5.70. The Supplies Committee again accepted what they rejected the year previous at a loss to the City of \$2.70 per box.

On Item 3229 of the 1903 contract, being for Little's satin finish, 8½ x 18½, the S. T. Smith Company bid \$2.50 per box and M. J. Tobin \$5 per box. The award for the 1903 contract was made to M. J. Tobin at a loss to the City of \$2.50 per box, the loss to the City apparently being proven by the fact that the 1904 contract for similar goods, Item 3743, was awarded to the S. T. Smith Company at \$2.50. Tobin again bid \$5.

For Item 3230 in the 1903 contract, Little's satin finish, 8 x 10, the S. T. Smith Company bid \$1 per box. M. J. Tobin was awarded this item at \$2.69 per box, a difference of \$1.69 on each box. Little's satin finish, 8 x 10, appears in the 1904 contract as Item 3744, the bidders for it being the S. T. Smith Company, at \$1 per box, the Smith Premier Company at \$1 per box, and M. J. Tobin at \$2.69. The award this year, however, was to the S. T. Smith Company at the same figure at which its bid was rejected a year previously.

Here are five cases at least in which the Supplies Committee of the Board of Education, in the exercise of its discretionary power in refusing to award to the lowest bidder where samples are alleged not to have been satisfactory, reversed its action a year later and made awards which, in comparison with the 1903 contract awards, will result in a very considerable saving to the City. Is it possible that the bidder for the 1903 contract submitted samples of lower grade than those submitted by him in 1904? The representatives of the S. T. Smith Company assert that such was not the case, and that the goods now being furnished by them are the same as it was proposed to furnish in 1903 had they been given the contract. The S. T. Smith Company's managers state that they are always willing to have their goods submitted to any test that may be agreed upon by competent persons in order to determine the relative qualities of their samples and those submitted by other firms.

It will be seen from the following table that in the five items of carbon paper the total cost at the high prices paid in 1903 was \$5,801.33. Had the awards been made to the lowest bidders, as was done by the Committee in 1904, the same quantities would have cost \$2,556.50—a difference of \$3,244.83, or a saving of over 125 per cent.

1903 Item No.	Quantities of Carbon Paper Ordered 1903.	Price Per Box as Awarded.	Total Cost at Contract Prices.	Lowest Bid Price Rejected in 1903, Per Box.	Cost at Lowest Price Bid.	Possible Saving to the City
(Boxes.)						
3236	43	\$9 75	\$419 25	\$3 00	\$129 00	\$290 25
3227	1,685	3 20	3,472 00	1 50	1,627 50	1,844 50
3228	6	5 70	34 20	3 00	18 00	16 20
3229	132	5 00	660 00	2 50	330 00	330 00
3230	452	2 60	1,215 88	1 00	452 00	763 88
Totals...	1,718	.....	\$5,801 33	.....	\$2,556 50	\$3,244 83

THE MIMEOGRAPH CONTRACTS.

In the classification for mimeographs and mimeograph supplies (the duplicating process owned by the A. B. Dick Company), it would appear that the character of the goods was, in each instance, specifically described. The catalogue numbers of the A. B. Dick Company were given, so that there could reasonably be no misunderstanding as to the particular article required by the contract specifications. In other words, any reputable stationery dealer having credit with the A. B. Dick Company should be in a position to undertake the contract even without submitting samples. There would be no substitution, the articles being specifically described by catalogue numbers. However, the Department of Education required that samples should be submitted. Any person

desiring to bid, other than the manufacturer, under the requirement of the Board of Education, would have to buy a set of samples, which, in the event of his failure to secure the contract, would be useless to him.

The bidders for mimeographs and mimeograph supplies for the 1903 contract with the bids of each on the several items where there was competition, were as follows:

J. B. Watkins. Otto G. Smith.

	Per Dozen	
Item 3270—Dick's indelible blue ink, No. 380, 6-oz. tube.....	\$9 72	\$10 80
Item 3271—Dick's indelible blue ink, No. 205, 6-oz. tube.....	9 72	10 80
Item 3273—Dick's indelible black ink, No. 384, 6-oz. tube.....	6 48	7 20
Item 3274—Dick's indelible black ink, No. 209, 6-oz. tube.....	8 64	9 60
	Per Quire	
Dick's autograph stencil paper, No. 300, 8x12, No. 0 or 3, mimeo.....	\$0 54	\$0 60
Dick's autograph stencil paper, No. 301, 11x16, No. 1 or 4, mimeo.....	81	90
Dick's autograph stencil paper, No. 302, 14x20, No. 2 or 5, mimeo.....	1 08	1 20
Item 3282—Dick's T. W. paper, No. 350, 10½x15, for No. 12 mimeo..	1 80	2 00
Item 3283—Dick's T. W. paper, No. 351, 8x10½, for No. 30 attachment	1 35	1 50
Item 3284—Dick's T. W. paper, No. 350, 10½x15, for No. 31 attachment	1 80	2 00
Item 3285—Dick's T. W. paper, No. 352, 14x20, for No. 32a attachment	3 15	3 50
Item 3286—Dick's T. W. paper, No. 353, 11x20, for No. 32b attachment	2 25	2 50
Item 3287—Dick's T. W. paper, No. 350, for Hammond typewriter and No. 51 mimeo.....	1 80	2 00
Item 3289—Dick's T. W. paper, No. 101, 8½x17, for No. 61.....	1 80	2 00
Item 3290—Dick's autograph stencil paper, No. 151.....	81	90

Of the 34 items awarded to Otto G. Smith, he was the only bidder on one, lowest on two, highest on fifteen, tied on sixteen. The statement is made that Otto G. Smith is connected with the A. B. Dick Company.

THE 1903 AWARDS FOR WRAPPING PAPER.

Item No. 3092 in the 1903 contract was for 1,000 reams of manila wrapping paper, 24 x 36 inches, 30 pounds per ream. The bidders were: Carter, Rice & Co., \$1.50; D. A. Tower, \$1.20; New York School Supply Company, \$1.08; Peckham, Little & Co., \$1.06; Matthew J. Tobin, \$1.05; Daniel Slote & Co., \$1.02; J. J. Callahan, \$0.96; George W. Millar & Co., \$0.93; United States Paper Company, \$0.834.

The award was made to George W. Millar & Co. at \$0.93 per ream. There were 1,268 reams ordered on the contract. David S. Walton secured the contract in 1904 at \$0.79.

Item No. 3093 was for 1,000 reams of manila wrapping paper, 24 x 36 inches, 60 pounds per ream, for covering books. The bidders were: D. A. Tower, \$3.40; Carter, Rice & Co., \$3; New York School Supply Company, \$2.21; George W. Millar & Co., \$2.18; Peckham, Little & Co., \$2.18; Matthew J. Tobin, \$2.10; Daniel Slote & Co., \$2.06; J. J. Callahan, \$1.89; United States Paper Company, \$1.744.

The award was made to Matthew J. Tobin at \$2.10. The order books show that 1,798 reams were purchased by the department during 1903. David S. Walton, the lowest bidder for this quality of paper, in the 1904 awards, received the contract at \$1.59 per ream.

Item No. 3094 was for 300 reams of manila wrapping paper, 30 x 40 inches, 80 pounds per ream. The bidders were: D. A. Tower, \$4.50; Carter, Rice & Co., \$4; New York School Supply Company, \$2.99; Peckham, Little & Co., \$2.91; George W. Millar & Co., \$2.90; Matthew J. Tobin, \$2.80; Daniel Slote & Co., \$2.74; J. J. Callahan, \$2.52; United States Paper Company, \$2.388.

The award was made to George W. Millar at \$2.90 per ream. The orders during 1903 amounted to 400 reams. Geo. W. Millar also received the award in 1904 at \$2.89 per ream, although David S. Walton bid \$2.12.

On each of the above three items the United States Paper Company was the lowest bidder for the 1903 contract.

STATEMENT FROM THE LOWEST BIDDER.

Mr. A. Rosenthal, of the United States Paper Company, told a representative of the Investigations Division that not until the visit of your examiner was the firm informed that its bids were the lowest in these three instances, at which he expressed great surprise. He said:

"After the bids for the 1903 contract were opened we were told at the Supplies Division that we were not successful, as our bids were too high. We later tried to secure a book showing the results of the bidding, but failed after two or three calls at the Bureau.

"We submitted samples with our bids, which were equal to the sample displayed by the Committee on Supplies at the Board room, and otherwise complied in full with the letter of the specifications as to bond, etc. I am sure a test would show that our sample was equal to the standard set up by the Board.

"We cannot conceive why the successful bidders were granted the contracts for manila paper at such an advance over our bids for the standard goods which we proposed to furnish.

"I may say that I visited one of the schools in Queens Borough last year and saw the manila paper being delivered there. It was what is known in the trade as 'butcher' paper or 'butcher's water proof.' This, I should say, is not suitable for school purposes. It is $\frac{3}{8}$ of a cent a pound cheaper than the standard paper called for. There was no 'butcher' paper exhibited in the Supplies Bureau among the samples from which the competitors made up their bids, yet I assume that the paper which I saw in the schools had been received from the Supplies Division."

RUBBER ERASERS 70 CENTS A POUND IN 1903; 40 CENTS A POUND IN 1904.

The item of India rubber erasers, of which 2,897 pounds were ordered during 1903, discloses a peculiar situation, and suggests that the Committee on Supplies must have resorted to some unusual plan in determining the relative qualities of the several samples submitted. It appears that for the 1903 contract for rubber erasers there were six bidders. The prices offered by five of these bidders ranged from \$0.39 to \$0.43 per pound. The successful contractors, the L. W. Ahrens Company, however, bid \$0.70, or almost twice as much as did the lowest bidder. In 1904 C. S. Braisted (Eagle Pencil Company) under his bid furnished the same article at \$0.40.

What tests the Supplies Committee made to ascertain the quality of the samples of erasers submitted has not been explained, but it would seem that there could hardly exist such a great disparity between the samples. If the rubbers are intended for general school use it is hardly possible that there was such a discernible difference in the quality of the erasers as would justify the selection by the Committee of erasers costing almost 100 per cent. more than the price they might have been purchased for.

C. S. Braisted, representing the Eagle Pencil Company, bid for the supplying of rubber erasers for the Board of Education for 1903. His bid was 40 cents a pound. The contract was awarded to the L. W. Ahrens Company at 70 cents a pound.

Homer Beach, who has charge of the educational contracts for the Eagle Pencil Company, in referring to the fact that his company had obtained the 1904 contract for rubber erasers, said:

"We submitted the same sample and the same price for rubber erasers in 1903 and 1904. Our price in both instances was 40 cents a pound. In 1903, another bidder, L. W. Ahrens Company, obtained the contract at 70 cents a pound. Perhaps the 70-cents-a-pound rubber erasers were of better quality than our 40-cent. erasers. However, you must go to the Board of Education to ascertain why our 40-cents-per-pound erasers were not good enough in 1903, but are good enough for 1904."

THE AWARDS FOR PENS.

The general supplies list for 1903 contains 55 items under the head of pens. During that year 30,573 gross were purchased at a cost of \$10,520.16. The following table shows the brands, the quantity ordered, the cost, and the contractors.

Brands.	Contractors.	Number of Style.	Quantity Ordered in 1903. Gross.	Cost for 1903.
Defiance.....	L. W. Ahrens Company.....	5	1,145	\$561 05
Eagle.....	C. S. Braisted.....	14	5,404	1,652 91
Esterbrook.....	L. W. Ahrens Company.....	12	9,765	2,806 90
Eclectic.....	Spencerian Pen Company.....	6	562	260 95

Brands.	Contractors.	Number of Style.	Quantity Ordered in 1903. Gross.	Cost for 1903.
Gillott's.....	Peckham, Little & Co.....	6	8,850	\$2,915 89
Smith.....	Richardson, Smith & Co.....	3	3,622	1,713 56
Spencerian.....	Spencerian Pen Company.....	2	1,205	602 50
Totals.....		49	30,573	\$10,520 16

President T. E. Smith, of the Spencerian Pen Company, complained of the treatment accorded his firm in the furnishing of pens to the schools. Mr. Smith said:

"Spencerian pens were formerly used almost exclusively in the schools. Prices have been gradually reduced to accommodate the Board of Education, and in order that there might be no excuse for excluding our goods from the list, we furnished the finest quality at the price of inferior grades. In 1902 we sold pens to the Board of Education at 50 cents per gross, while the trade price was 67½ cents.

"The Supplies Committee last year cut out ten numbers of our pens, leaving only Nos. 5 and 15, while those of other firms were not cut out. It is the same for this year (1904).

"Our No. 1 is used in schools all over the country. For some reason the Supplies Committee cut out this pen last year and substituted pens not suitable, in my opinion, for school use. This year (1904) we reduced our price to 40 cents a gross on No. 1. This we did to give the schools a standard pen, and to leave no excuse for dropping us on account of price, but No. 1 was excluded from the list.

"As so many school teachers prefer our No. 1 we have sent to principals a circular notifying them of our willingness to exchange Nos. 5 and 15 for No. 1, and no doubt many teachers will avail themselves of the privilege.

"One-half the pens on the list are not generally sold by the trade and are to be had only from certain jobbers. The number on the list should be reduced at least 50 per cent. The variety is now greater than is carried by any stationer in New York. An expert should select the pens best adapted to school use and the rest should be thrown off the list.

"A jobber comes into our office and asks for a pen with his name stamped upon it, as he proposes to enter into competition for some public contract. If we demand 50 cents a gross, he retorts that he can get good enough pens at 20 cents a gross elsewhere. That is the way goods of inferior grades are frequently put into use in City departments as well as schools.

"In the Department of Education imitations of standard patterns of pens are accepted by the Supplies Committee, despite our willingness to furnish a superior article to the schools below the market rate. We know of no remedy for the peculiar situation brought about by these methods."

STATEMENTS BY UNSUCCESSFUL BIDDERS.

Forker & Baldwin, manufacturers of flags, at No. 19 Beekman street, submitted a bid for 200 American flags. Their bid was \$3.95 a flag, which was the lowest. The contract was awarded to Annin & Co., whose bid was \$4.05 a flag.

Mr. C. A. Forker, of Forker & Baldwin, in referring to the award of the contract to Annin & Co., said:

"The contract should have been awarded to us because we were the lowest bidders. Our bid was not only the lowest, but our flags were superior in quality and finish. We know of no reason why we were not awarded the contract because we complied with every specification called for. In fact, our flags were better in every respect than the sample furnished by the Board of Education.

"We were never informed of the result of the bidding and we have never had a request to make another bid. The truth is we decided that it would be useless for us to compete for contracts with the present Board of Education, or as long as the present system of awarding contracts is in vogue. While we do not charge that there is any dishonesty in the awarding of contracts by those in authority at the Board of Education, it is our opinion that unbusinesslike methods prevail. Our firm manufactures flags for the United States Government and they are accepted after careful examination as to the quality of the material and work. The flags we offered to furnish to the Board of Education at a lower figure than those contracted for were of the same quality and work as those furnished by us to the Federal Government. When we agreed to bid for the 200 flags for the Board of Education, Mr. Jones, the Superintendent of the Supplies Department, said that 'this time everybody will be given a chance.' Mr. Baldwin and myself are now of the belief that we never had a chance."

Mr. Henry M. Crist, manager of the firm of Milton Bradley Company, of No. 11 East Sixteenth street, in speaking of the awards of contracts by the Board of Education, said:

"Our firm manufactures materials for use in kindergartens. We also manufacture paper and stationery goods. We have for years secured contracts from the Board of Education. We put in our bids and if we are successful we receive notice."

When Mr. Crist was told that his firm had failed to receive the contracts for eighteen items on the supply list for 1903, on which the firm was the lowest bidder, he replied:

"That information astonishes me. We never knew that we were the lowest bidders on those items. We were merely told that the contracts for those items had been awarded to other firms, and we naturally concluded that we had not been the lowest bidders. I have not the faintest idea why we were not awarded all contracts where our bids were the lowest. Of course a bidder whose bid is the lowest may have his bid set aside by the judgment of the Supplies Committee or its representative, as to the merits of the sample furnished. In my opinion, arbitrary action is sometimes taken in the awarding of contracts, especially in decisions whereby the lowest bids are rejected, because the samples of the contractors do not, or it is claimed they do not, equal the

sample held as the standard by the Board of Education. However, I do not wish to offer any criticism of the Supplies Division of the Board of Education. I have been dealing with the Board for years, and every contract received by our firm has been obtained without favor or influence. I have no reason to suppose that any influence has been or can be brought to bear upon those whose duty it is to award contracts. It may be that sometimes the lowest bidder has not followed the specifications as to the quality of the goods."

Asked if Milton Bradley Company had not been awarded contracts on which they had not been the lowest bidder, Mr. Crist replied:

"Perhaps we have. As I said before, we are only informed of the bids on which we have been successful. As the Board of Education only furnishes the contractors with a pamphlet containing the awards, there is no way of knowing the figures of the unsuccessful bidders."

Carter, Rice & Co., stationers and paper dealers, of No. 150 Nassau street, lost four contracts with the Board of Education for supplies for 1903, although they were the lowest bidders. The contracts referred to and the facts relating thereto are subjoined:

Contract Item No.	Supplies.	Bid of Carter, Rice & Co.	Successful Bidders and Award Price.
3073	75,000 envelopes.....	\$2.86 per 1,000.....	M. J. Tobin..... \$4 60
3089	2,500 dozen pads.....	.90 per dozen.....	Peckham, Little & Co. 1 05
3090	1,000 reams legal cap...	.75 ream.....	L. W. Ahrens..... 1 02
3091	2,000 reams legal cap...	.48 ream.....	L. W. Ahrens..... 58%

Mr. W. G. Sloat, representing Carter, Rice & Co., was surprised to learn that the firm bids were lower than those at which the awards for 1903 were made.

"We put in our bids after complying with every specification," said Mr. Sloat, "and, not hearing from the Board of Education, we concluded that we had been underbid. So we were the lowest bidders? Well, that is news to us. But we are not surprised, because we did not get the contracts. This firm has not the highest opinion of the business methods of the Board of Education. When reputable firms bid for supplies and their bids are the lowest, they should be given the contracts in preference to jobbers, who, in many instances, must get their goods at second hand. No one man should have the power to decide that the lowest bidder should not have a contract because the sample furnished does not meet the requirements as understood by him. There is plenty of room under such a system for favoritism and monopoly. There are a large number of business men and manufacturers who do not care to bid for supplies for the Board of Education."

The American News Company was the lowest bidder on the following contracts, which were awarded to bidders whose bids were higher :

Item No. 1903.	Supplies Bid For.	American News Co. Bid.	Bid Which Obtained Contract.
3241	50 reams No. 2 typewriting paper.....	60 cents per ream.....	M. J. Tobin, 88 cents ream.
3244	72 reams No. 5 typewriting paper.....	74 cents per ream.....	M. J. Tobin, 96 cents ream.
3420	100 dozen small sponges.	5 cents per dozen.....	Steiger & Co., 23 cents dozen.

Mr. Stephen Farrelly, Manager of the American News Company, says he knows of no justifiable reason why his company should not have been awarded the contracts for the above supplies. He asserts that all the specifications regarding quality, surety, etc., were carried out. It is Mr. Farrelly's opinion that too much latitude is given to the party or parties connected with the Board of Education who decide if a sample of supplies needed comes up to the quality specified.

CONCLUSIONS.

Whatever the explanation to be given for these divergences from the rule of awarding contracts to the lowest bidders, it is inevitable that such and other irregularities will increasingly continue until such time as the Board of Education shall adopt more permanent standards and more reliable methods for the examination and comparison of samples. The absence of a permanent system that can be relied upon from year to year leaves the way open for those very irregularities which it is the object of fair and open competition to prevent.

Respectfully,

ROBERT B. McINTYRE, Examiner, Investigations Division.

REPORT No. 15.

Analysis of 1903 Printing Contract.

Examination of payments made on the contract of The J. W. Pratt Company, the Department of Education printing contractor for 1903, discloses certain facts indicating that there is room for economy in the distribution of printed supplies, and necessity for a closer supervision of printing done for the Board. In this report a few illustrations are presented showing what seem to be instances of wastefulness in furnishing supplies and of manipulation of work done in order to swell the charges for the same.

The 1903 printing contract was based on estimates for supplies of which the Board might order more or less than \$50,000 worth. From vouchers obtainable when this analysis was made (there were then outstanding a number of charges on the contract) it appears that \$59,847.07 had been paid for printing out of the following funds for 1903:

Special School Fund—Incidental expenses.....	\$43,339 15
Special School Fund—Supplies.....	8,867 05
Special School Fund—Lectures.....	5,868 19
Special School Fund—Compulsory education.....	993 98
Special School Fund—School building.....	747 00
Special School Fund—High School.....	32 70
Total	<hr/> \$59,848 07 <hr/>

The amount paid the contractor for alterations made by the author in proofs reached \$3,144.30, which is included in the above sum of \$59,848.07. Of this sum \$2,363.80 was paid for alterations in contract specifications and Board Minutes. The cost of printing minutes and specifications was nearly one-half of the total payment, or \$27,296.37, of which nearly 9 per cent. was for alterations.

From an exhaustive analysis of the long list of printing supplies furnished to the schools is taken the item of expense of printing contract specifications, with the amount charged by the printer for alterations. Almost invariably charges are made for alterations, ranging all the way from \$1.20 to \$113.40, and aggregating \$1,451.30. Proposal forms, being akin to specifications, are included in the list.

The printing of specifications for the general construction of a new public school might call for the expenditure of \$113.10, as in the case of Public School 63, Manhattan, if it be conceded that the present elaborate form is necessary. But in the following and similar cases it would appear that a considerable saving in cost could be made if the Board of Education had prepared a brief, simple form of specification, to be approved as to form by the Corporation Counsel, and to occupy, say, four pages of printed matter, instead of forty pages or more, for which \$1.25 a page is paid:

Locks, etc., Public School 50, Manhattan.....	\$64 70
Proposals for coal and wood.....	122 30
Improving lots, Public School 45.....	52 40
Improving lots, Public School 4, Manhattan.....	56 20
Heating and ventilating apparatus, Public School 84, Brooklyn.....	83 25
Openings in parapet walls.....	32 50
Erecting benches on roof playgrounds.....	36 78
Pipe organ, Girls' High School, Brooklyn.....	47 05
Improving lots, Public School 143, Brooklyn.....	75 30
	<hr/>
Total	\$618 18
	<hr/>

The item of alterations in the printing of the minutes of the Board and its committees is not inconsiderable, amounting to \$912.50 out of a total cost of \$11,373.59. The facts disclosed naturally suggest the query, Why should it be necessary to pay for alterations on every order for printing minutes?

In a general way only a small saving might be effected by condensation in the printing of the text of the minutes of the Board of Education and its Executive Committee, but tabular matter inserted is, as a rule, so extended that the cost of printing such tables is unnecessarily increased about 35 per cent.

The minutes of the Board for September 17, 1903, include the annual departmental budget, which is extended over pages 1885 to 2544, inclusive—660 pages. On pages 1888 to 2432 appear lists of teachers in the schools of the Greater City, their proposed salaries for 1904, and increases, if any. On pages 2433 to 2544, salaries of officers, janitors, clerks, statements of cost of supplies, etc., are presented.

In a full page of text of the minutes 1 inch blank space is left at the top and 1¼ inches at the bottom. In the tabular pages the matter is extended from page to page, leaving in many instances additional blank space at the bottom of the page.

In the minutes of September 24, 1902, the Budget was set in "solid" type, but apparently in order to increase the number of pages to be paid for, the matter was spread over 490 pages which might have been compressed into 400 pages without detriment to the typography.

In 1903 the contractor had the Budget "slugged" or "double leaded" extending the tables over 660 pages, and presenting a greater printed surface on each page than in 1902. If set "solid," as in 1902, and "made up close as possible," as expressly stipulated in the contract the Budget matter could have been printed within 425 pages. This would have made a saving of 235 pages, at \$2.25 per page, or \$528.75.

The minutes of the Board of Education of May 27, 1903, contain a list of books for school libraries, with names of authors. It is printed in large type, "double leaded," and occupies 83 pages. This list looks like a "pick-up" or reprint from another Board document. The contract provides that "special reports of documents reprinted separately from proceedings to be at same price per page." In the minutes of July 13, 1903, appears a list of text books in similar large type to the above, but it is set "solid." The list covers 91 pages and is apparently not a "pick-up." As \$2.25 is the contract price per page for printing Board minutes, \$186.75 might be considered a liberal contribution to the contractor for this one "pick-up" in the Journal of the Board of Education.

It would appear from a perusal of the bills rendered under the Pratt contract for printed supplies furnished to the De Witt Clinton and the Wadleigh High Schools that the best judgment was not exercised in such distribution. These two schools are selected at random to illustrate the disparity that seems to exist in other directions in the quantities of printed supplies furnished to various schools.

De Witt Clinton High School, including its four annexes, according to the report of the Board of Education for 1902, had 2,464 pupils. This school appears to have been especially favored in the matter of printed supplies in 1903. Bills were rendered by the contractor for the following on orders from the Board's representative:

DESCRIPTION.	QUANTITY.	COST.
Admission and discharge cards.....	80,500	\$70 00
Recitation cards	45,500	33 18
Pupils' receipts for books	30,000	115 20
Half-note blanks Form 7	30,000	57 00
Letter-heads	25,000	102 78
Program cards	24,500	24 50
Note-heads	23,500	72 78
Daily summary of attendance	20,000	26 67
Report of lateness	18,000	9 75
No. 6½ envelopes	16,500	27 30
Tabulation sheets	8,400	38 72
Manila envelopes	8,000	27 28
Postal cards	7,850	98 87
Special report to principal.....	7,500	7 50

DESCRIPTION.	QUANTITY.	COST.
Progress reports	7,500	\$2 14
Report to parent.....	6,000	8 90
Special report to parent	6,000	6 24
Permanent record cards	4,750	22 38
Assignment notices	4,350	5 45
Special report on work and conduct	3,700	2 86
Seat charts	3,650	19 53
Permission for absence	3,500	3 04
Report of scholarship	3,500	14 00
No. 10 envelopes	3,100	9 15
Monthly summary of attendance	3,000	10 00
Half-letter blanks, Form 1	1,650	5 03
Irregular pupils	1,360	6 00
Transfer cards	1,200	1 80
No. 12 envelopes	1,000	4 00
Recommendation cards	950	1 90
Term sheets	800	25 60
Subject teachers' report	500	2 33
Programs of daily recitations	275	2 94
Total	401,975	\$865 48

With a total scholarship of approximately 2,500, it would seem that 80,500 admission and discharge tickets ought to be sufficient for years to come. The liberal supply of 45,500 recitation cards is equalled by the orders for 30,000 pupils' receipt for books. The extensive correspondence of the school apparently called for 25,000 letter-heads and 23,500 note-heads, with envelopes, and 7,850 postal cards. Various blanks used were also ordered on the same liberal scale.

Bills were rendered under the contract to Wadleigh High School for printing supplies, as follows:

DESCRIPTION.	QUANTITY.	COST
Special bulletins	5,000	\$7 50
Bulletins	5,000	7 50
Progress cards	3,000	3 00
Special report to parent	2,000	2 08
Recommendation cards	1,500	3 00
Postal cards, Form 27	1,500	18 38
	18,000	\$41 46

The report of the Board of Education for 1902 gives the number of pupils in Wadleigh High School as 2,488.

An examination of the bill of the J. W. Pratt Company, rendered on September 21, 1903, suggests the possibility of lack of proper care in checking claims of contractors that may have existed under former conditions in the Supply Division. Superintendent of Supplies Patrick Jones had dissected the items of the bill and eliminated several important charges therein. The bill is designated as Order No. 3218, Job No. 1848 E 6, and was transmitted to the Department of Finance for audit and payment on January 15, 1904, being for the following work:

250 Copies of Budget.

83 forms press work, at \$2.50 per form.....	\$207 50
Author's alterations, 93 hours, at 60 cents per hour.....	55 80
Additional corrections and make-up, paper and press work on forms printed before corrections were sent in.....	67 50
Binding 250 copies, \$1 per signature....	83 00
Night work, 240 hours, at 80 cents (not allowed—P. J.).....	192 00
Sunday work, 180 hours, at \$1.20 (not allowed—P. J.).....	216 00
45 hours' night work on presses, at \$2 (not allowed—P. J.).....	90 00
Remakeup and reimposition of Budget, 660 pages, 670 hours, at 60 cents..	402 00
In correction made, number of hours reduced from 670 to 502½.....	301 50
Standing type, 8,736 ems to a page, at 10 cents per 1 000 ems; 660 pages at 87 1-3 cents per page (not allowed—P. J.).....	576 40
Total of claim before deductions were made.....	\$1,890 20
Amount of claim as corrected.....	715 30

The deductions made by Superintendent Jones amounted to \$1,174.90 out of a total of \$1,890.20. The only inference appears to be that in its original form there was an overcharge in the bill. The bill bears an indorsement accepting the reduced amount. This is signed by the J. W. Pratt Company, J. F. Handy, President, O. K., as corrected by P. Jones, Superintendent of Supplies.

The bill as originally rendered, it would appear, passed through the office of the Bureau of Supplies and was approved October 9, 1903, by Parker P. Simmons, then Superintendent of School Supplies.

The order for the work was issued on August 22, and was for "250 copies of the Budget (part minutes of the Board of Education)." Written in purple indelible ink, following the first part of the order written in black pencil, appears this memorandum:

"To be paid for as per minutes; allowance to be made for paper, press work, binding, alterations, and for keeping type standing."

This largely reduced bill may be related to another bill of the J. W. Pratt Company, dated October 30, 1903, being for orders Nos. 3718 and 3151, Job No. 1877 E 6. The latter bill was for printing 2,000 copies of minutes of the Board of Education special meeting of September 17, 1903, including the Budget and minutes of Executive Committee meetings of July 21 and 22 and August 19, pages 1731 to 1838 inclusive.

814 pages in all, at \$2.25.....	\$1,831 50
192 hours of alterations, including changes on Budget.....	115 20
Total of bill.....	<u>\$1,946 70</u>

This claim appears to have been paid and is included with other claims in the schedule paid by Warrant No. 51,755 of 1903. Payment was approved by Parker P. Simmons, Superintendent of Schools, on November 10, 1903.

This report deals only with the Pratt contract for printing for 1903, so far as payments had been made on the same by the Comptroller. It does not treat of non-contract printing ordered by the Board of Education.

It appears that the Board is a firm believer in the use of printer's ink, and distributes its documents in some directions with great prodigality. A member of one of the local school boards states that she has received seven pounds of printed matter from the Board of Education since September 1, 1903; that as she has no authority as an official of the Department, she protests that this avalanche of reports and other school literature is of absolutely no use to her and is a sheer waste of money.

Respectfully,

ROBERT B. McINTYRE,

Examiner, Investigations Division.

Part





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